ADVANCED AND EVER ADVANCING MITSUBISHI ELECTRIC

MITSUBISHI ELECTRIC

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

CE

2001

No. OC238
REVISED EDITION-B

TECHNICAL & SERVICE MANUAL

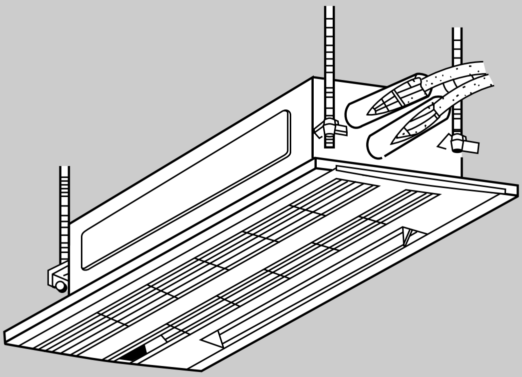
Series PMH Ceiling Cassettes R407C

Indoor unit
[Model names] **[Service Ref.]**

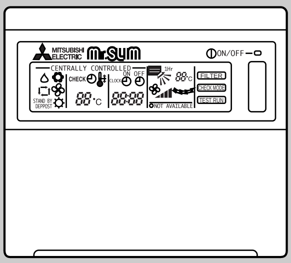
[Model names]	[Service Ref.]
PMH-P1BA	PMH-P1BA
	PMH-P1BA$_1$
PMH-P1.6BA	PMH-P1.6BA
	PMH-P1.6BA$_1$
PMH-P2BA	PMH-P2BA
	PMH-P2BA$_1$

- PMH-P1BA$_1$,PMH-P1.6BA$_1$,PMH-P2BA$_1$ are added in REVISED EDITION-B.
- Please void OC238.REVISED EDITION-A.
- Refer to the OCT03 REVISED EDITION-C as regarding control relation.This manual does not cover outdoor units. When servicing them, please refer to the service manual No.OC180 REVISED EDITION-A, OC261 and this manual in a set.

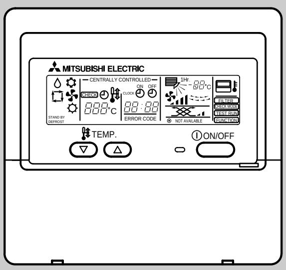
[Service Ref.]
<OC180 REVISED EDITION-A>
PUH-P1.6VGA
PUH-P1.6YGA
PUH-P2VGA
PUH-P2YGA
<OC261>
PUH-P1VGAA.UK
PUH-P1.6VGAA.UK
PUH-P1.6YGAA.UK
PUH-P2VGAA.UK
PUH-P2YGAA.UK



INDOOR UNIT



PMH- P1,1.6,2BA



PMH- P1,1.6,2BA$_1$

REMOTE CONTROLLER

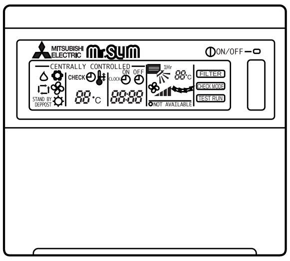
CONTENTS

Mr.SLIM™

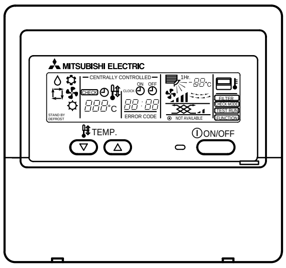
1 TECHNICAL CHANGES

PMH-P1BA → PMH-P1BA$_1$ **PMH-P1.6BA → PMH-P1.6BA$_1$**
PMH-P2BA → PMH-P2BA$_1$

- Outdoor units which are connected to PMH-P•BA and PMH-P•BA$_1$ have been added.
- The parts No. of REMOTE CONTROLLER has changed. (The following parts numbers are interchangeable.)



[T7W E00 713]



[T7W E06 713]

2 COMBINATION OF INDOOR AND OUTDOOR UNITS

Indoor unit	Outdoor unit								
	PUH-P								
	1.6VGA	1.6YGA	2VGA	2YGA	1VGAA.UK	1.6VGAA.UK	1.6YGAA.UK	2VGAA.UK	2YGAA.UK
PMH-P1BA	—	—	—	—	○	—	—	—	—
PMH-P1.6BA	○	○	—	—	—	○	○	—	—
PMH-P2BA	—	—	○	○	—	—	—	○	○
PMH-P1BA1	—	—	—	—	○	—	—	—	—
PMH-P1.6BA1	—	—	—	—	—	○	○	—	—
PMH-P2BA1	—	—	—	—	—	—	—	○	○

3 SAFETY PRECAUTION

Cautions for using with the outdoor unit which adopts R407C refrigerant.

· **Do not use the existing refrigerant piping.**
-The old refrigerant and lubricant in the existing piping contains a large amount of chlorine which may cause the lubricant of the new unit to deteriorate.

· **Do not use copper pipes which are broken, deformed or discolour .**
In addition, be sure that the inner surfaces of the pipes are clean, free of hazardous sulphur and oxides, or have no dust / dirt, shaving particles, oils, moisture or any other contamination.
-If there is a large amount of residual oil (hydraulic oil, etc.) inside the piping and joints, deterioration of the lubricant will result.

· **Store the piping to be used during installation indoors and keep both ends of the piping sealed until just before brazing. (Store elbows and other joints in a plastic bag.)**
-If dust, dirt, or water enters the refrigerant cycle, deterioration of the oil and compressor trouble may result.

· **Use ester oil, ether oil or alkyl benzene (small amount) as the lubricant to coat flares and flange connections.**
-The lubricant will degrade if it is mixed with a large amount of mineral oil.

Use liquid refrigerant to fill the system.
-If gas refrigerant is used to fill the system, the composition of the refrigerant in the cylinder will change and performance may drop.

· **Do not use a refrigerant other than R407C.**
-If another refrigerant (R22, etc.) is used, the chlorine in the refrigerant may cause the lubricant to deteriorate.

· **Use a vacuum pump with a reverse flow check valve.**
-The vacuum pump oil may flow back into the refrigerant cycle and cause the lubricant to deteriorate.

· **Do not use the following tools that are used with conventional refrigerant.**
(Gauge manifold , charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, refrigerant recovery equipment)
-If the conventional refrigerant and lubricant are mixed in the R407C, the refrigerant may deteriorated.
-If water is mixed in the R407C, the lubricant may deteriorate.
-Since R407C does not contain any chlorine, gas leak detectors for conventional refrigerant will not react to it.

· **Do not use a charging cylinder.**
-Using a charging cylinder may cause the refrigerant to deteriorate.

· **Be especially careful when managing the tools.**
-if dust, dirt, or water gets in the refrigerant cycle, the refrigerant may deteriorate.

· **Do not use the drier which is sold in the field.**
-The drier for R407C refrigerant is per-attached to outdoor unit refrigerant circuit.
-Some drier in the field are not in conformity with R407C refrigerant .

[1] Service tools

Use the below service tools as exclusive tools for R407C refrigerant.

No.	Tool name	Specifications
①	Gauge manifold	·Only for R407C.
		·Use the existing fitting SPECIFICATIONS. (UNF7/16)
		·Use high-tension side pressure of 3.43MPa·G or over.
②	Charge hose	·Only for R407C.
		·Use pressure performance of 5.10MPa·G or over.
③	Electronic scale	
④	Gas leak detector	·Use the detector for R407C.
⑤	Adapter for reverse flow check.	·Attach on vacuum pump.
⑥	Refrigerant charge base.	
⑦	Refrigerant cylinder.	·For R407C ·Top of cylinder (Brown) ·Cylinder with syphon
⑧	Refrigerant recovery equipment.	

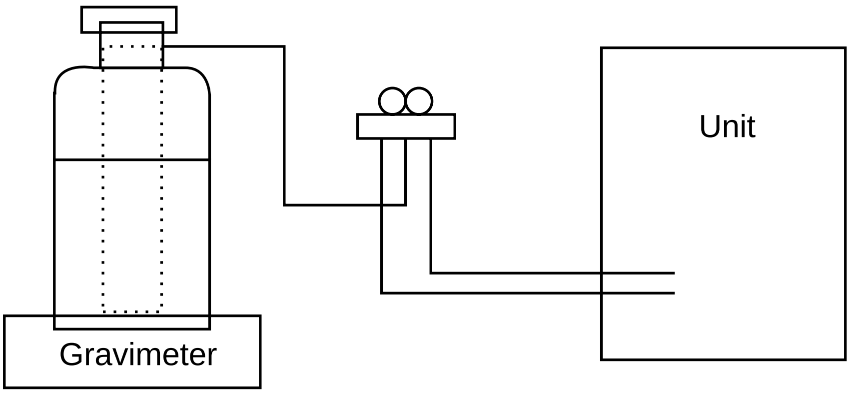
[2] Notice on repair service

·After recovering the all refrigerant in the unit, proceed to working.
·Do not release refrigerant in the air.
·After completing the repair service, recharge the cycle with the specified amount of liquid refrigerant.

[3] Refrigerant recharging

(1) Refrigerant recharging process

①Direct charging from the cylinder.
·R407C cylinder are available on the market has a syphon pipe.
·Leave the syphon pipe cylinder standing and recharge it.
(By liquid refrigerant)



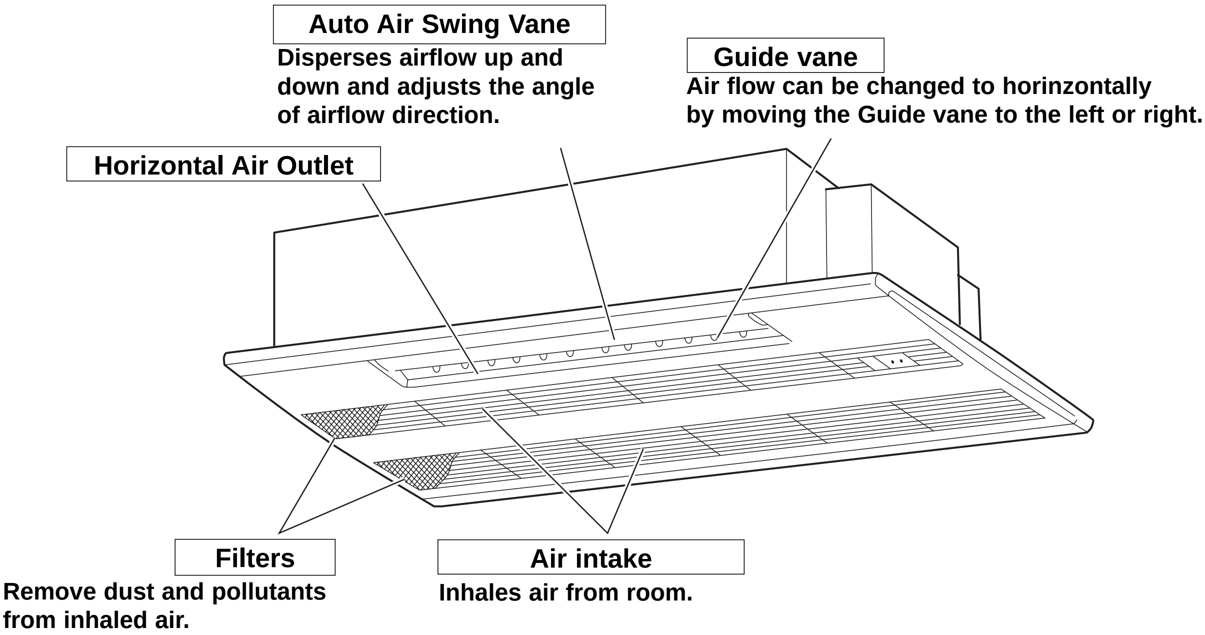
(2) Recharge in refrigerant leakage case

·After recovering the all refrigerant in the unit, proceed to working.
·Do not release the refrigerant in the air.
·After completing the repair service, recharge the cycle with the specified amount of liquid refrigerant.

4 PART NAMES AND FUNCTIONS

● **Indoor (Main) Unit**

PMH-P1BA, PMH-P1BA1
PMH-P1.6BA, PMH-P1.6BA1
PMH-P2BA, PMH-P2BA1



PMH-P1BA
PMH-P1.6BA
PMH-P2BA

● **Remote controller**

● Once the controls are set, the same operation mode can be repeated by simply pressing the ON/OFF button.

● **Operation buttons**

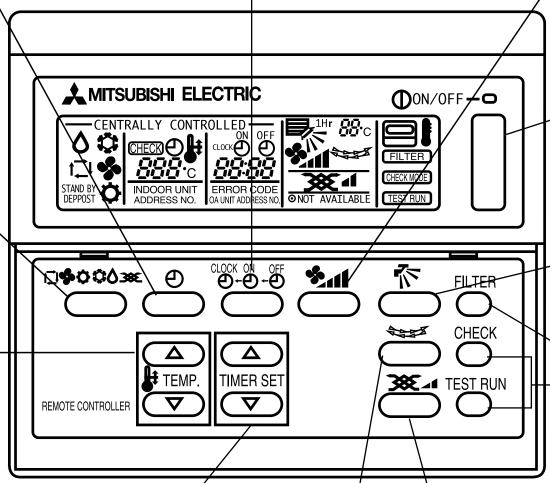
TIME SETTING button
This sets of switches the current time. start time and stop time.

TIMER button
This switches between continuous operation and the timer operation.

AIR SPEED button
This sets the fan speed.

OPERATION SWITCH button
Press this button to switch the cooler electronic dry (dehumidify) automatic and heater modes.

ON/OFF button
This switches between the operation and stop modes each time it is pressed. The lamp on this button lights during operation.



AIR DIRECTION button
This adjusts the vertical angle of the ventilation.

TEMP. ADJUSTMENT button
This sets the room temperature The temperature setting can be performed in 1°C units
Setting range
Cooler 19°C to 30°C
Heater 17°C to 28°C

FILTER button
This resets the filter cleaning indication display.

CHECK-TEST RUN button
Only press this button to perform an inspection check or test operation Do not use it for normal operation.

TIMER ADJUSTMENT button
This adjust the current time, start time and stop time.

LOUVER button
This switches the horizontal fan motion ON and OFF.
(This button does not operate in this model)

VENTILATION button
This sets the ventilation fan speed.

● Display

In this display example on the bottom left, a condition where all display lamps light is shown for explanation purposes although this differs from actual operation.

CENTRALLY CONTROLLED display

This indicates when the unit is controlled by optional features such as central control type remote controller.

CLOCK display

The current time , start time and stop time can be displayed in ten second intervals by pressing the time switch button. The start time or stop time is always displayed during the timer operation.

TIMER display

This indicates when the continuous operation and time operation modes are set.
It also display the time for the timer operation at the same time as when it is set.

AIR DIRECTION display

This displays the air direction.

FAN SPEED display

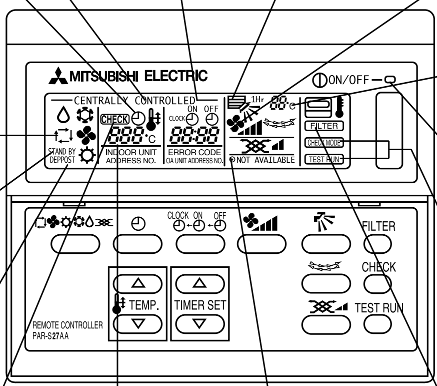
The selected fan speed is displayed.

OPERATION MODE display

This indicates the operation mode.

ROOM TEMPERATURE display

The temperature of the suction air is displayed during operation. The display range is 8° to 39°C. The display flashes 8°C when the actual temperature is less than 8° and flashes 39°C when the actual temperature is greater than 39°C.



STANDBY display

This indicates when the standby mode is set from the time the sleep operation starts until the heating air is discharged.

Operation lamp

This lamp lights during operation, goes off when the unit stops and flashes when a malfunction occurs.

CHECK MODE / TEST RUN display

This display lights in the check mode or when a test operation is performed.

DEFROST display

This indicates when the defrost operation is performed.

FILTER display

This lamp lights when the filter need to be cleaned.

CHECK display

This indicates when a malfunction has occurred in the unit which should be checked.

SET TEMPERATURE display

This displays the selected setting temperature.

POWER display

This lamp lights when electricity is supplied to the unit.

Caution

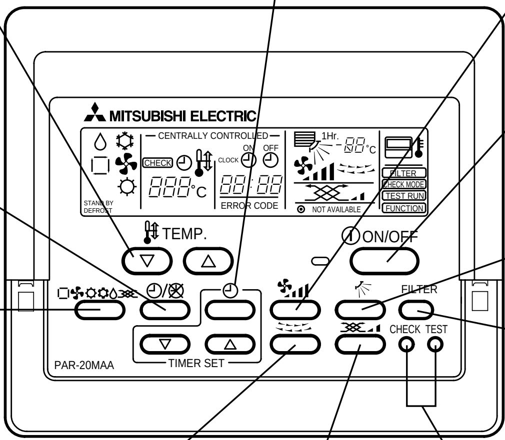
- Only the Power display lights when the unit is stopped and power supplied to the unit.
- When power is turned ON for the first time the (CENTRAL CTRL) display appears to go off momentarily but this is not a malfunction.
- When the central control remote control unit, which is sold separately, is used the ON-OFF button, operation switch button and 🌡 TEMP. adjustment button do not operate.
- “NOT AVAILABLE” is displayed when the Air speed button are pressed.This indicates that this room unit is not equipped with the fan direction adjustment function and the louver function.
- When power is turned ON for the first time, it is normal that “H0” is displayed on the room temperature indication (For max. 2minutes). Please wait until this “H0” indication disappear then start the operation.

PMH-P1BA1
PMH-P1.6BA1
PMH-P2BA1

● Remote controller

● Once the controls are set, the same operation mode can be repeated by simply pressing the ON/OFF button.

● Operation buttons



TEMP. ADJUSTMENT button
This sets the room temperature. The temperature setting can be performed in 1℃ units
Setting range
Cooler 19℃ to 30℃
Heater 17℃ to 28℃

TIME SETTING button
This sets the current time, start time and stop time.

AIR SPEED button
This sets the ventilation fan speed.

ON/OFF button
This switches between the operation and stop modes each time it is pressed. The lamp on this button lights during operation.

TIMER button
This switches between continuous operation and the timer operation.

AIR DIRECTION button
This adjusts the vertical angle of the ventilation.

OPERATION SWITCH button
Press this button to switch the cooler, electronic dry (dehumidify), automatic and heater modes.

FILTER button
This resets the filter service indication display

LOUVER button
This switch the horizontal fan motion ON and OFF.
(Not available for this model.)

VENTILATION button
This sets the ventilation fan speed.

CHECK-TEST RUN button
Only press this button to perform an inspection check or test operation. Do not use it for normal operation.

● Display

In this display example on the bottom left, a condition where all display lamps light is shown for explanation purposes although this differs from actual operation.

CENTRALLY CONTROLLED display
This indicates when the unit is controlled by optional features such as central control type remote controller.

CLOCK display
The current time , start time and stop time can be displayed in ten second intervals by pressing the time switch button. The start time or stop time is always displayed during the timer operation.

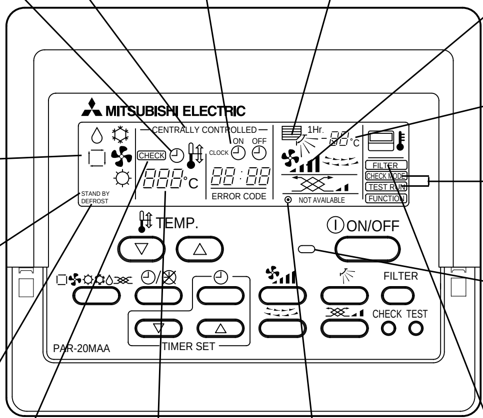
AIR DIRECTION display
This displays the air direction.

TIMER display
This indicates when the continuous operation and time operation modes are set.
It also display the time for the timer operation at the same time as when it is set.

AIR SPEED display
The selected fan speed is displayed.

ROOM TEMPERATURE display
The temperature of the suction air is displayed during operation. The display range is 8°C to 39°C. The display flashes 8°C when the actual temperature is less than 8°C and flashes 39°C when the actual temperature is greater than 39°C.

OPERATION MODE display
This indicates the operation mode.



STANDBY display
The [STANDBY] symbol is only displayed from the time the heating operation starts unit the heated air begins to blow.

Operation lamp
This lamp lights during operation, goes off when the unit stops and flashes when a malfunction occurs.

CHECK MODE / TEST RUN display
This display lights in the check mode or when a test operation is performed.

DEFROST display
This indicates when the defrost operation is performed.

FILTER display
This lamp lights when the filter need to be cleaned.

CHECK display
This indicates when a malfunction has occurred in the unit which should be checked.

SET TEMPERATURE display
This displays the selected setting temperature.

POWER display
This lamp lights when electricity is supplied to the unit.

Caution

- Only the Power display lights when the unit is stopped and power supplied to the unit.
- When the central control remote control unit, which is sold separately, is used the ON-OFF button, operation switch button and TEMP. adjustment button do not operate.
- “NOT AVAILABLE” is displayed when the Air speed button are pressed.This indicates that this room unit is not equipped with the fan direction adjustment function and the louver function.
- When power is turned ON for the first time, it is normal that “H0” is displayed on the room temperature indication (For max. 2minutes). Please wait until this “H0” indication disappear then start the operation.

5 SPECIFICATIONS

5-1. SPECIFICATIONS

	Item		Service Ref.	PMH-P1.6BA			
	Function			Cooling		Heating	
	Capacity		Btu/h	15,000		17,100	
			W	4,400		5,000	
	Total input		kW	1.65		1.70	
INDOOR UNIT	Service Ref.			PMH-P1.6BA			
	Power supply(phase, cycle, voltage)			Single Phase, 50Hz, 220-230-240V			
		Input	kW	0.06		0.06	
		Running current	A	0.29		0.29	
		Starting current	A	0.32		0.32	
	External finish			Unit : Galvanized sheets with gray heat insulation, Grille munsell 0.98Y 8.99/0.63			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) x No.		Lineflow fan (direct) x 1			
		Fan motor output	kW	0.028			
		Airflow(Lo - Mi2- Mi1 - Hi)	m^3/min(CFM)	7.0-8.0-9.0-10.0(247-282-318-353)			
		External static pressure	Pa(mmAq)	0(direct blow)			
	Operation control & Thermostat			Remote controller & built-in			
	Noise level(Lo - Mi2 - Mi1 - Hi)		dB	34-36-38-40			
	Unit drain pipe I.D.		mm(in.)	26(1)			
	Dimensions	W	mm(in.)	UNIT : 854(33-5/8) PANEL : 1000(39-3/8)			
		D	mm(in.)	UNIT : 395(15-9/16) PANEL : 470(18-1/2)			
		H	mm(in.)	UNIT : 230(9-1/16) PANEL : 30(1-3/16)			
	Weight		kg(lbs)	UNIT : 14(31) PANEL : 3.0(6.6)			
OUTDOOR UNIT	Service Ref.			PUH-P1.6VGA	PUH-P1.6YGA	PUH-P1.6VGA	PUH-P1.6YGA
	Power supply (phase, cycle, voltage)			Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)	Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)
		Running current	A	7.66	2.67	8.19	2.86
		Starting current	A	36		20	
	External finish			Munsell 5Y 8/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		RE277VHSM		RE277YFKM	
		Motor output	kW	1.3			
		Starter type		Line start			
		Protection devices		※1		※2	
		Crankcase heater	W	28			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) x No.		Propeller (direct) x 1			
		Fan motor output	kW	0.070			
		Airflow	m^3/min(CFM)	45(1,590)			
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB	46			
		Heating	dB	48			
	Dimensions	W	mm(in.)	900(35-7/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	650(25-5/8)			
	Weight		kg(lbs)	55(121)			
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	2.6(5.7)			
		Oil (Model)	L	1.2(Ester)MEL56			
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)			
		Gas	mm(in.)	15.88(5/8)			
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 40m			
		Piping length		Max. 40m			

Notes1. Rating Conditions (ISO T1)
Cooling····Indoor : D.B. 27˚C(80˚F), W.B. 19˚C (66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C (75˚F)
Heating····Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C (43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit Single phase 240V 50Hz
Outdoor Unit Single phase 240V 50Hz
3 phase 415V 50Hz

※1: Inner thermostat, HP switch, Discharge thermo.
※2: Thermal relay, Discharge thermo, HP switch, Anti-phase protector.

Group	Item	Sub-item	Unit				
	Service Ref. / Item			**PMH-P2BA**			
	Function			Cooling		Heating	
	Capacity		Btu/h	18,400		21,300	
			W	5,400		6,250	
	Total input		kW	2.35		2.42	
INDOOR UNIT	**Service Ref.**			**PMH-P2BA**			
	Power supply(phase, cycle, voltage)			Single Phase, 50Hz, 220-230-240V			
		Input	kW	0.06		0.06	
		Running current	A	0.29		0.29	
		Starting current	A	0.32		0.32	
	External finish			Unit : Galvanized sheets with gray heat insulation, Grille munsell 0.98Y 8.99/0.63			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) x No.		Lineflow fan (direct) x 1			
		Fan motor output	kW	0.028			
		Airflow(Lo - Mi2 - Mi1 - Hi)	m³/min(CFM)	8.0-9.0-10.0-11.0(282-318-353-388)			
		External static pressure	Pa(mmAq)	0(direct blow)			
	Operation control & Thermostat			Remote controller & built-in			
	Noise level(Lo - Mi2 - Mi1 - Hi)		dB	36-38-40-42			
	Unit drain pipe I.D.		mm(in.)	26(1)			
	Dimensions	W	mm(in.)	UNIT : 854(33-5/8) PANEL : 1000(39-3/8)			
		D	mm(in.)	UNIT : 395(15-9/16) PANEL : 470(18-1/2)			
		H	mm(in.)	UNIT : 230(9-1/16) PANEL : 30(1-3/16)			
	Weight		kg(lbs)	UNIT : 14(31) PANEL : 3.0(6.6)			
OUTDOOR UNIT	**Service Ref.**			**PUH-P2VGA**	**PUH-P2YGA**	**PUH-P2VGA**	**PUH-P2YGA**
	Power supply (phase, cycle, voltage)			Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)	Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)
		Running current	A	11.11	3.88	11.51	4.02
		Starting current	A	74		30	
	External finish			Munsell 5Y 8/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		NE38VMJM		NE38YEJM	
		Motor output	kW	1.7			
		Starter type		Line start			
		Protection devices		※1		※2	
		Crankcase heater	W	35			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) x No.		Propeller (direct) x 1			
		Fan motor output	kW	0.070			
		Airflow	m³/min(CFM)	55(1,940)			
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB	48			
		Heating	dB	49			
	Dimensions	W	mm(in.)	900(35-7/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	855(33-5/8)			
	Weight		kg(lbs)	71(157)			
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	3.1(6.8)			
		Oil (Model)	L	1.2(Ester)MEL56			
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)			
		Gas	mm(in.)	15.88(5/8)			
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 40m			
		Piping length		Max. 40m			

Notes1. Rating Conditions (ISO T1)
Cooling····Indoor : D.B. 27˚C(80˚F), W.B. 19˚C (66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C (75˚F)
Heating····Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C (43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit Single phase 240V 50Hz
Outdoor Unit Single phase 240V 50Hz
3 phase 415V 50Hz

※1: Inner thermostat, HP switch, Discharge thermo.
※2: Thermal relay, Discharge thermo, HP switch, Anti-phase protector.

Item				Service Ref.	PMH-P1BA / PMH-P1BA$_1$	
Function					Cooling	Heating
Capacity				Btu/h	10,700	11,600
				W	3,150	3,400
Total input				kW	1.15	1.06
INDOOR UNIT	**Service Ref.**				**PMH-P1BA / PMH-P1BA$_1$**	
	Power supply(phase, cycle, voltage)				Single Phase, 50Hz, 220-230-240V	
		Input		kW	0.04	0.04
		Running current		A	0.19	0.19
		Starting current		A	0.21	0.21
	External finish				Unit : Galvanized sheets with gray heat insulation, Grille munsell 0.98Y 8.99/0.63	
	Heat exchanger				Plate fin coil	
	Fan	Fan(drive) x No.			Lineflow fan (direct) x 1	
		Fan motor output		kW	0.028	
		Airflow(Lo - Mi2 - Mi1 - Hi)		m^3/min(CFM)	6.3-6.8-7.6-8.4(222-240-268-297)	
		External static pressure		Pa(mmAq)	0(direct blow)	
	Operation control & Thermostat				Remote controller & built-in	
	Noise level(Lo - Mi2 - Mi1 - Hi)			dB	29-31-33-35	
	Unit drain pipe I.D.			mm(in.)	26(1)	
	Dimensions		W	mm(in.)	UNIT : 854(33-5/8) PANEL : 1000(39-3/8)	
			D	mm(in.)	UNIT : 395(15-9/16) PANEL : 470(18-1/2)	
			H	mm(in.)	UNIT : 230(9-1/16) PANEL : 30(1-3/16)	
	Weight			kg(lbs)	UNIT : 14(31) PANEL : 3.0(6.6)	
OUTDOOR UNIT	**Service Ref.**				**PUH-P1VGAA.UK**	
	Power supply (phase, cycle, voltage)				Single Phase, 50Hz, 220-230-240V	
		Running current		A	4.92	4.52
		Starting current		A	30	
	External finish				Munsell 5Y 7/1	
	Refrigerant control				Linear Expansion Valve	
	Compressor				Hermetic	
		Model			RE189VHSMT	
		Motor output		kW	0.85	
		Starter type			Line start	
		Protection devices			Inner thermostat, HP switch, Discharge thermo.	
		Crankcase heater		W	30	
	Heat exchanger				Plate fin coil	
	Fan	Fan(drive) x No.			Propeller (direct) x 1	
		Fan motor output		kW	0.070	
		Airflow		m^3/min(CFM)	45(1,590)	
	Defrost method				Reverse cycle	
	Noise level		Cooling	dB	46	
			Heating	dB	48	
	Dimensions		W	mm(in.)	900(35-7/16)	
			D	mm(in.)	330+20(13+3/4)	
			H	mm(in.)	650(25-5/8)	
	Weight			kg(lbs)	50(110)	
REFRIGERANT PIPING	Refrigerant				R407C	
		Charge		kg(lbs)	1.7(3.7)	
		Oil (Model)		L	0.57(Ester)MEL56	
	Pipe size O.D.		Liquid	mm(in.)	6.35(1/4)	
			Gas	mm(in.)	12.7(1/2)	
	Connection method		Indoor side		Flared	
			Outdoor side		Flared	
	Between the indoor & outdoor unit		Height difference		Max. 30m	
			Piping length		Max. 30m	

Notes1. Rating Conditions (ISO T1)
Cooling····Indoor : D.B. 27˚C(80˚F), W.B. 19˚C (66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C (75˚F)
Heating····Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C (43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit Single phase 240V 50Hz
Outdoor Unit Single phase 240V 50Hz

Section	Item			Unit / Service Ref.	PMH-P1.6BA / PMH-P1.6BA1			
	Function				Cooling		Heating	
	Capacity			Btu/h	15,000		17,100	
				W	4,400		5,000	
	Total input			kW	1.65		1.70	
INDOOR UNIT	**Service Ref.**				**PMH-P1.6BA / PMH-P1.6BA1**			
	Power supply(phase, cycle, voltage)				Single Phase, 50Hz, 220-230-240V			
		Input		kW	0.06		0.06	
		Running current		A	0.29		0.29	
		Starting current		A	0.32		0.32	
	External finish				Unit : Galvanized sheets with gray heat insulation, Grille munsell 0.98Y 8.99/0.63			
	Heat exchanger				Plate fin coil			
	Fan	Fan(drive) x No.			Lineflow fan (direct) x 1			
		Fan motor output		kW	0.028			
		Airflow(Lo - Mi2- Mi1 - Hi)		m^3/min(CFM)	7.0-8.0-9.0-10.0(247-282-318-353)			
		External static pressure		Pa(mmAq)	0(direct blow)			
	Operation control & Thermostat				Remote controller & built-in			
	Noise level(Lo - Mi2 - Mi1 - Hi)			dB	34-36-38-40			
	Unit drain pipe I.D.			mm(in.)	26(1)			
	Dimensions		W	mm(in.)	UNIT : 854(33-5/8) PANEL : 1000(39-3/8)			
			D	mm(in.)	UNIT : 395(15-9/16) PANEL : 470(18-1/2)			
			H	mm(in.)	UNIT : 230(9-1/16) PANEL : 30(1-3/16)			
	Weight			kg(lbs)	UNIT : 14(31) PANEL : 3.0(6.6)			
OUTDOOR UNIT	**Service Ref.**				**PUH-P1.6VGAA.UK**	**PUH-P1.6YGAA.UK**	**PUH-P1.6VGAA.UK**	**PUH-P1.6YGAA.UK**
	Power supply (phase, cycle, voltage)				Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)	Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)
		Running current		A	7.36	2.49	7.59	2.56
		Starting current		A	36		20	
	External finish				Munsell 5Y 7/1			
	Refrigerant control				Linear Expansion Valve			
	Compressor				Hermetic			
		Model			RE277VHSMT		RE277YFKM	
		Motor output		kW	1.3			
		Starter type			Line start			
		Protection devices			※1		※2	
		Crankcase heater		W	30			
	Heat exchanger				Plate fin coil			
	Fan	Fan(drive) x No.			Propeller (direct) x 1			
		Fan motor output		kW	0.070			
		Airflow		m^3/min(CFM)	45(1,590)			
	Defrost method				Reverse cycle			
	Noise level		Cooling	dB	47			
			Heating	dB	49			
	Dimensions		W	mm(in.)	900(35-7/16)			
			D	mm(in.)	330+20(13+3/4)			
			H	mm(in.)	650(25-5/8)			
	Weight			kg(lbs)	54(119)			
REFRIGERANT PIPING	Refrigerant				R407C			
		Charge		kg(lbs)	2.5(5.5)			
		Oil (Model)		L	0.57(Ester)MEL56			
	Pipe size O.D.		Liquid	mm(in.)	9.52(3/8)			
			Gas	mm(in.)	15.88(5/8)			
	Connection method		Indoor side		Flared			
			Outdoor side		Flared			
	Between the indoor & outdoor unit		Height difference		Max. 40m			
			Piping length		Max. 40m			

Notes1. Rating Conditions (ISO T1)

Cooling····Indoor : D.B. 27°C(80°F), W.B. 19°C (66°F) Outdoor : D.B. 35°C(95°F), W.B. 24°C (75°F)

Heating····Indoor : D.B. 20°C(68°F) Outdoor : D.B. 7°C(45°F), W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C W.B. 15°C	D.B. -5°C
Heating	Upper limit	D.B. 28°C	D.B. 24°C W.B. 18°C
	Lower limit	D.B. 17°C	D.B. -11°C W.B. -12°C

3. Above data based on indicated voltage

Indoor Unit Single phase 240V 50Hz

Outdoor Unit Single phase 240V 50Hz

3 phase 415V 50Hz

※1: Inner thermostat, HP switch, Discharge thermo.

※2: Thermal relay, Discharge thermo, HP switch, Anti-phase protector.

Item			Service Ref.	PMH-P2BA / PMH-P2BA1			
Function				Cooling		Heating	
Capacity			Btu/h	18,400		21,450	
			W	5,400		6,250	
Total input			kW	2.35		2.42	
INDOOR UNIT	**Service Ref.**			**PMH-P2BA / PMH-P2BA1**			
	Power supply(phase, cycle, voltage)			SinglePhase, 50Hz, 220-230-240V			
		Input	kW	0.06		0.06	
		Running current	A	0.29		0.29	
		Starting current	A	0.32		0.32	
	External finish			Unit : Galvanized sheets with gray heat insulation, Grille munsell 0.98Y 8.99/0.63			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) x No.		Lineflow fan (direct) x 1			
		Fan motor output	kW	0.028			
		Airflow(Lo - Mi2 - Mi1 - Hi)	m³/min(CFM)	8.0-9.0-10.0-11.0(282-318-353-388)			
		External static pressure	Pa(mmAq)	0(direct blow)			
	Operation control & Thermostat			Remote controller & built-in			
	Noise level(Lo - Mi2 - Mi1 - Hi)		dB	36-38-40-42			
	Unit drain pipe I.D.		mm(in.)	26(1)			
	Dimensions	W	mm(in.)	UNIT : 854(33-5/8) PANEL : 1000(39-3/8)			
		D	mm(in.)	UNIT : 395(15-9/16) PANEL : 470(18-1/2)			
		H	mm(in.)	UNIT : 230(9-1/16) PANEL : 30(1-3/16)			
	Weight		kg(lbs)	UNIT : 14(31) PANEL : 3.0(6.6)			
OUTDOOR UNIT	**Service Ref.**			**PUH-P2VGAA.UK**	**PUH-P2YGAA.UK**	**PUH-P2VGAA.UK**	**PUH-P2YGAA.UK**
	Power supply (phase, cycle, voltage)			Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)	Single Phase, 50Hz, 220-230-240V	3 phase, 50Hz, 380-400-415V(4wires)
		Running current	A	10.26	3.70	10.57	3.82
		Starting current	A	62		31	
	External finish			Munsell 5Y 7/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		NE36VMJMT		NE38YEJM	
		Motor output	kW	1.6			
		Starter type		Line start			
		Protection devices		※1		※2	
		Crankcase heater	W	38			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) x No.		Propeller (direct) x 1			
		Fan motor output	kW	0.070			
		Airflow	m³/min(CFM)	55(1,940)			
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB	48			
		Heating	dB	50			
	Dimensions	W	mm(in.)	900(35-7/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	855(33-5/8)			
	Weight		kg(lbs)	74(163)			
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	2.6(5.7)			
		Oil (Model)	L	1.2(Ester)MEL56			
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)			
		Gas	mm(in.)	15.88(5/8)			
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 40m			
		Piping length		Max. 40m			

Notes1. Rating Conditions (ISO T1)

Cooling····Indoor : D.B. 27˚C(80˚F), W.B. 19˚C (66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C (75˚F)
Heating····Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C (43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C W.B. -12˚C

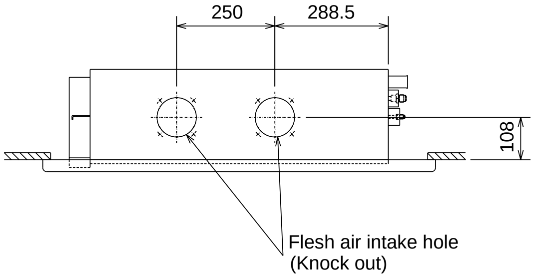
3. Above data based on indicated voltage

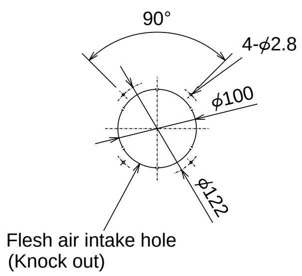
Indoor Unit Single phase 240V 50Hz
Outdoor Unit Single phase 240V 50Hz
3 phase 415V 50Hz

※1: Inner thermostat, HP switch, Discharge thermo.
※2: Thermal relay, Discharge thermo, HP switch, Anti-phase protector.

5-2. Air capacity taken from outside

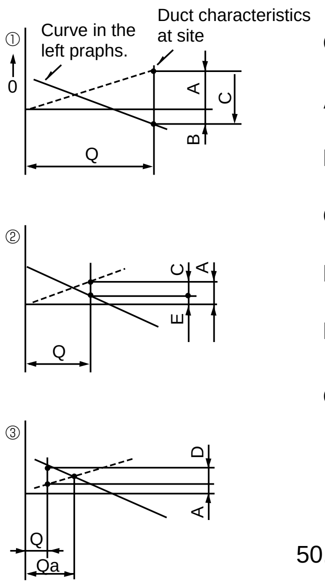
PMH-P·BA series are possible to be taken air from outside.
When taking air from the outside, the duct fan can be used to.
The air capacity should be 20% or less of the air flow SPEC(Hi).





	Air flow (Hi)	Air capacity taken outside
PMH-P1BA, PMH-P1BA1	8.4m^3/min	1.6m^3/min
PMH-P1.6BA, PMH-P1.6BA1	10.0m^3/min	2.0m^3/min
PMH-P2BA, PMH-P2BA1	11.0m^3/min	2.2m^3/min

How to read curves



Q…Planned amount of fresh air intake   <m^3/min>

A…Static pressure loss of fresh air intake duct system with air flow amount Q   <Pa>

B…Forced static pressure at air conditioner inlet with air flow amount Q   <Pa>

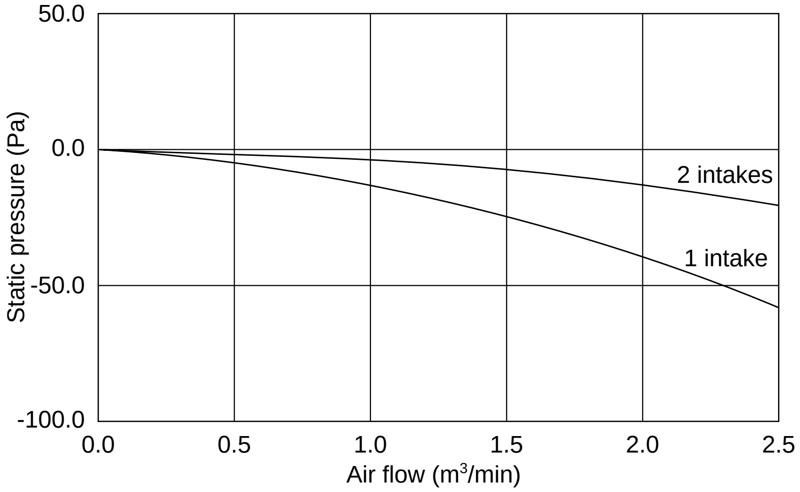
C…Static pressure of booster fan with air flow amount Q   <Pa>

D…Static pressure loss increase amount of fresh air intake duct system for air flow amount Q   <Pa>

E…Static pressure of indoor unit with air flow amount Q   <Pa>

Qa…Estimated amount of fresh air intake without D   <m^3/min>

Characteristic diagram of air capacity taken from outside



6 DATA

6-1. PERFORMANCE DATA

1) COOLING CAPACITY(1)

PMH-P1BA, PMH-P1BA1

Indoor Intake air D.B.(°C)	Indoor Intake air W.B.(°C)	Outdoor intake air D.B.(°C)											
		20				25				30			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	3,119	2,089	0.67	0.92	3,024	2,026	0.67	0.97	2,930	1,963	0.67	1.03
20	18	3,339	1,836	0.55	0.94	3,245	1,784	0.55	0.99	3,134	1,724	0.55	1.06
20	20	3,591	1,544	0.43	0.97	3,512	1,510	0.43	1.01	3,418	1,470	0.43	1.08
22	16	3,119	2,339	0.75	0.92	3,024	2,268	0.75	0.97	2,930	2,197	0.75	1.03
22	18	3,339	2,104	0.63	0.94	3,245	2,044	0.63	0.99	3,134	1,975	0.63	1.06
22	20	3,591	1,831	0.51	0.97	3,512	1,791	0.51	1.01	3,418	1,743	0.51	1.08
24	16	3,119	2,588	0.83	0.92	3,024	2,510	0.83	0.97	2,930	2,431	0.83	1.03
24	18	3,339	2,371	0.71	0.94	3,245	2,304	0.71	0.99	3,134	2,225	0.71	1.06
24	20	3,591	2,119	0.59	0.97	3,512	2,072	0.59	1.01	3,418	2,016	0.59	1.08
24	22	3,827	1,799	0.47	0.99	3,749	1,762	0.47	1.05	3,654	1,717	0.47	1.12
26	16	3,119	2,838	0.91	0.92	3,024	2,752	0.91	0.97	2,930	2,666	0.91	1.03
26	18	3,339	2,638	0.79	0.94	3,245	2,563	0.79	0.99	3,134	2,476	0.79	1.06
26	20	3,591	2,406	0.67	0.97	3,512	2,353	0.67	1.01	3,418	2,290	0.67	1.08
26	22	3,827	2,105	0.55	0.99	3,749	2,062	0.55	1.05	3,654	2,010	0.55	1.12
28	16	3,119	3,087	0.99	0.92	3,024	2,994	0.99	0.97	2,930	2,900	0.99	1.03
28	18	3,339	2,905	0.87	0.94	3,245	2,823	0.87	0.99	3,134	2,727	0.87	1.06
28	20	3,591	2,693	0.75	0.97	3,512	2,634	0.75	1.01	3,418	2,563	0.75	1.08
28	22	3,827	2,411	0.63	0.99	3,749	2,362	0.63	1.05	3,654	2,302	0.63	1.12
30	16	3,119	3,119	1.00	0.92	3,024	3,024	1.00	0.97	2,930	2,930	1.00	1.03
30	18	3,339	3,172	0.95	0.94	3,245	3,082	0.95	0.99	3,134	2,978	0.95	1.06
30	20	3,591	2,981	0.83	0.97	3,512	2,915	0.83	1.01	3,418	2,837	0.83	1.08
30	22	3,827	2,717	0.71	0.99	3,749	2,661	0.71	1.05	3,654	2,594	0.71	1.12
32	16	3,119	3,119	1.00	0.92	3,024	3,024	1.00	0.97	2,930	2,930	1.00	1.03
32	18	3,339	3,339	1.00	0.94	3,245	3,245	1.00	0.99	3,134	3,134	1.00	1.06
32	20	3,591	3,268	0.91	0.97	3,512	3,196	0.91	1.01	3,418	3,110	0.91	1.08
32	22	3,827	3,024	0.79	0.99	3,749	2,961	0.79	1.05	3,654	2,887	0.79	1.12
34	16	3,119	3,119	1.00	0.92	3,024	3,024	1.00	0.97	2,930	2,930	1.00	1.03
34	18	3,339	3,339	1.00	0.94	3,245	3,245	1.00	0.99	3,134	3,134	1.00	1.06
34	20	3,591	3,555	0.99	0.97	3,512	3,477	0.99	1.01	3,418	3,384	0.99	1.08
34	22	3,827	3,330	0.87	0.99	3,749	3,261	0.87	1.05	3,654	3,179	0.87	1.12

Note CA : Capacity (W)
P.C. : Power consumption (kW)
SHC(W) : Sensible heat capacity
SHF : Sensible heat factor

Above data based on indicated voltage
Indoor unit : Single phase 240V 50Hz
Outdoor unit : Single phase 240V 50Hz

COOLING CAPACITY(2)
PMH-P1BA, PMH-P1BA1

Indoor Intake air D.B.(°C)	Indoor Intake air W.B.(°C)	Outdoor intake air D.B.(°C)											
		35				40				45			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	2,804	1,878	0.67	1.10	2,678	1,794	0.67	1.18	2,552	1,710	0.67	1.28
20	18	3,024	1,663	0.55	1.13	2,930	1,611	0.55	1.22	2,741	1,507	0.55	1.31
20	20	3,276	1,409	0.43	1.16	3,150	1,355	0.43	1.24	2,961	1,273	0.43	1.33
22	16	2,804	2,103	0.75	1.10	2,678	2,008	0.75	1.18	2,552	1,914	0.75	1.28
22	18	3,024	1,905	0.63	1.13	2,930	1,846	0.63	1.22	2,741	1,727	0.63	1.31
22	20	3,276	1,671	0.51	1.16	3,150	1,607	0.51	1.24	2,961	1,510	0.51	1.33
24	16	2,804	2,327	0.83	1.10	2,678	2,222	0.83	1.18	2,552	2,118	0.83	1.28
24	18	3,024	2,147	0.71	1.13	2,930	2,080	0.71	1.22	2,741	1,946	0.71	1.31
24	20	3,276	1,933	0.59	1.16	3,150	1,859	0.59	1.24	2,961	1,747	0.59	1.33
24	22	3,528	1,658	0.47	1.18	3,402	1,599	0.47	1.28	3,213	1,510	0.47	1.36
26	16	2,804	2,551	0.91	1.10	2,678	2,437	0.91	1.18	2,552	2,322	0.91	1.28
26	18	3,024	2,389	0.79	1.13	2,930	2,314	0.79	1.22	2,741	2,165	0.79	1.31
26	20	3,276	2,195	0.67	1.16	3,150	2,111	0.67	1.24	2,961	1,984	0.67	1.33
26	22	3,528	1,940	0.55	1.18	3,402	1,871	0.55	1.28	3,213	1,767	0.55	1.36
28	16	2,804	2,775	0.99	1.10	2,678	2,651	0.99	1.18	2,552	2,526	0.99	1.28
28	18	3,024	2,631	0.87	1.13	2,930	2,549	0.87	1.22	2,741	2,384	0.87	1.31
28	20	3,276	2,457	0.75	1.16	3,150	2,363	0.75	1.24	2,961	2,221	0.75	1.33
28	22	3,528	2,223	0.63	1.18	3,402	2,143	0.63	1.28	3,213	2,024	0.63	1.36
30	16	2,804	2,804	1.00	1.10	2,678	2,678	1.00	1.18	2,552	2,552	1.00	1.28
30	18	3,024	2,837	0.95	1.13	2,930	2,783	0.95	1.22	2,741	2,603	0.95	1.31
30	20	3,276	2,719	0.83	1.16	3,150	2,615	0.83	1.24	2,961	2,458	0.83	1.33
30	22	3,528	2,505	0.71	1.18	3,402	2,415	0.71	1.28	3,213	2,281	0.71	1.36
32	16	2,804	2,804	1.00	1.10	2,678	2,678	1.00	1.18	2,552	2,552	1.00	1.28
32	18	3,024	3,024	1.00	1.13	2,930	2,930	1.00	1.22	2,741	2,741	1.00	1.31
32	20	3,276	2,981	0.91	1.16	3,150	2,867	0.91	1.24	2,961	2,695	0.91	1.33
32	22	3,528	2,787	0.79	1.18	3,402	2,688	0.79	1.28	3,213	2,538	0.79	1.36
34	16	2,804	2,804	1.00	1.10	2,678	2,678	1.00	1.18	2,552	2,552	1.00	1.28
34	18	3,024	3,024	1.00	1.13	2,930	2,930	1.00	1.22	2,741	2,741	1.00	1.31
34	20	3,276	3,243	0.99	1.16	3,150	3,119	0.99	1.24	2,961	2,931	0.99	1.33
34	22	3,528	3,069	0.87	1.18	3,402	2,960	0.87	1.28	3,213	2,795	0.87	1.36

Note CA : Capacity (W)
P.C. : Power consumption (kW)
SHC(W) : Sensible heat capacity
SHF : Sensible heat factor

Above data based on indicated voltage
Indoor unit : Single phase 240V 50Hz
Outdoor unit : Single phase 240V 50Hz

COOLING CAPACITY(3)
PMH-P1.6BA, PMH-P1.6BA1

Indoor Intake air D.B.(°C)	Indoor Intake air W.B.(°C)	Outdoor intake air D.B.(°C)											
		20				25				30			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	4,356	2,614	0.60	1.32	4,224	2,534	0.60	1.39	4,092	2,455	0.60	1.48
20	18	4,664	2,239	0.48	1.34	4,532	2,175	0.48	1.42	4,378	2,101	0.48	1.52
20	20	5,016	1,806	0.36	1.39	4,906	1,766	0.36	1.45	4,774	1,719	0.36	1.55
22	16	4,356	2,962	0.68	1.32	4,224	2,872	0.68	1.39	4,092	2,783	0.68	1.48
22	18	4,664	2,612	0.56	1.34	4,532	2,538	0.56	1.42	4,378	2,452	0.56	1.52
22	20	5,016	2,207	0.44	1.39	4,906	2,159	0.44	1.45	4,774	2,101	0.44	1.55
24	16	4,356	3,311	0.76	1.32	4,224	3,210	0.76	1.39	4,092	3,110	0.76	1.48
24	18	4,664	2,985	0.64	1.34	4,532	2,900	0.64	1.42	4,378	2,802	0.64	1.52
24	20	5,016	2,608	0.52	1.39	4,906	2,551	0.52	1.45	4,774	2,482	0.52	1.55
24	22	5,346	2,138	0.40	1.42	5,236	2,094	0.40	1.50	5,104	2,042	0.40	1.60
26	16	4,356	3,659	0.84	1.32	4,224	3,548	0.84	1.39	4,092	3,437	0.84	1.48
26	18	4,664	3,358	0.72	1.34	4,532	3,263	0.72	1.42	4,378	3,152	0.72	1.52
26	20	5,016	3,010	0.60	1.39	4,906	2,944	0.60	1.45	4,774	2,864	0.60	1.55
26	22	5,346	2,566	0.48	1.42	5,236	2,513	0.48	1.50	5,104	2,450	0.48	1.60
28	16	4,356	4,008	0.92	1.32	4,224	3,886	0.92	1.39	4,092	3,765	0.92	1.48
28	18	4,664	3,731	0.80	1.34	4,532	3,626	0.80	1.42	4,378	3,502	0.80	1.52
28	20	5,016	3,411	0.68	1.39	4,906	3,336	0.68	1.45	4,774	3,246	0.68	1.55
28	22	5,346	2,994	0.56	1.42	5,236	2,932	0.56	1.50	5,104	2,858	0.56	1.60
30	16	4,356	4,356	1.00	1.32	4,224	4,224	1.00	1.39	4,092	4,092	1.00	1.48
30	18	4,664	4,104	0.88	1.34	4,532	3,988	0.88	1.42	4,378	3,853	0.88	1.52
30	20	5,016	3,812	0.76	1.39	4,906	3,729	0.76	1.45	4,774	3,628	0.76	1.55
30	22	5,346	3,421	0.64	1.42	5,236	3,351	0.64	1.50	5,104	3,267	0.64	1.60
32	16	4,356	4,356	1.00	1.32	4,224	4,224	1.00	1.39	4,092	4,092	1.00	1.48
32	18	4,664	4,477	0.96	1.34	4,532	4,351	0.96	1.42	4,378	4,203	0.96	1.52
32	20	5,016	4,213	0.84	1.39	4,906	4,121	0.84	1.45	4,774	4,010	0.84	1.55
32	22	5,346	3,849	0.72	1.42	5,236	3,770	0.72	1.50	5,104	3,675	0.72	1.60
34	16	4,356	4,356	1.00	1.32	4,224	4,224	1.00	1.39	4,092	4,092	1.00	1.48
34	18	4,664	4,664	1.00	1.34	4,532	4,532	1.00	1.42	4,378	4,378	1.00	1.52
34	20	5,016	4,615	0.92	1.39	4,906	4,514	0.92	1.45	4,774	4,392	0.92	1.55
34	22	5,346	4,277	0.80	1.42	5,236	4,189	0.80	1.50	5,104	4,083	0.80	1.60

Note CA : Capacity (W)
P.C. : Power consumption (kW)
SHC(W) : Sensible heat capacity
SHF : Sensible heat factor

Above data based on indicated voltage
Indoor unit : Single phase 240V 50Hz
Outdoor unit : Single phase 240V 50Hz / 3 phase 415V 50Hz

COOLING CAPACITY(4)
PMH-P1.6BA, PMH-P1.6BA$_1$

Indoor Intake air D.B.(°C)	Indoor Intake air W.B.(°C)	Outdoor intake air D.B.(°C)											
		35				40				45			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	3,916	2,350	0.60	1.58	3,740	2,244	0.60	1.70	3,564	2,138	0.60	1.84
20	18	4,224	2,028	0.48	1.63	4,092	1,964	0.48	1.75	3,828	1,837	0.48	1.88
20	20	4,576	1,647	0.36	1.67	4,400	1,584	0.36	1.78	4,136	1,489	0.36	1.91
22	16	3,916	2,663	0.68	1.58	3,740	2,543	0.68	1.70	3,564	2,424	0.68	1.84
22	18	4,224	2,365	0.56	1.63	4,092	2,292	0.56	1.75	3,828	2,144	0.56	1.88
22	20	4,576	2,013	0.44	1.67	4,400	1,936	0.44	1.78	4,136	1,820	0.44	1.91
24	16	3,916	2,976	0.76	1.58	3,740	2,842	0.76	1.70	3,564	2,709	0.76	1.84
24	18	4,224	2,703	0.64	1.63	4,092	2,619	0.64	1.75	3,828	2,450	0.64	1.88
24	20	4,576	2,380	0.52	1.67	4,400	2,288	0.52	1.78	4,136	2,151	0.52	1.91
24	22	4,928	1,971	0.40	1.70	4,752	1,901	0.40	1.83	4,488	1,795	0.40	1.95
26	16	3,916	3,289	0.84	1.58	3,740	3,142	0.84	1.70	3,564	2,994	0.84	1.84
26	18	4,224	3,041	0.72	1.63	4,092	2,946	0.72	1.75	3,828	2,756	0.72	1.88
26	20	4,576	2,746	0.60	1.67	4,400	2,640	0.60	1.78	4,136	2,482	0.60	1.91
26	22	4,928	2,365	0.48	1.70	4,752	2,281	0.48	1.83	4,488	2,154	0.48	1.95
28	16	3,916	3,603	0.92	1.58	3,740	3,441	0.92	1.70	3,564	3,279	0.92	1.84
28	18	4,224	3,379	0.80	1.63	4,092	3,274	0.80	1.75	3,828	3,062	0.80	1.88
28	20	4,576	3,112	0.68	1.67	4,400	2,992	0.68	1.78	4,136	2,812	0.68	1.91
28	22	4,928	2,760	0.56	1.70	4,752	2,661	0.56	1.83	4,488	2,513	0.56	1.95
30	16	3,916	3,916	1.00	1.58	3,740	3,740	1.00	1.70	3,564	3,564	1.00	1.84
30	18	4,224	3,717	0.88	1.63	4,092	3,601	0.88	1.75	3,828	3,369	0.88	1.88
30	20	4,576	3,478	0.76	1.67	4,400	3,344	0.76	1.78	4,136	3,143	0.76	1.91
30	22	4,928	3,154	0.64	1.70	4,752	3,041	0.64	1.83	4,488	2,872	0.64	1.95
32	16	3,916	3,916	1.00	1.58	3,740	3,740	1.00	1.70	3,564	3,564	1.00	1.84
32	18	4,224	4,055	0.96	1.63	4,092	3,928	0.96	1.75	3,828	3,675	0.96	1.88
32	20	4,576	3,844	0.84	1.67	4,400	3,696	0.84	1.78	4,136	3,474	0.84	1.91
32	22	4,928	3,548	0.72	1.70	4,752	3,421	0.72	1.83	4,488	3,231	0.72	1.95
34	16	3,916	3,916	1.00	1.58	3,740	3,740	1.00	1.70	3,564	3,564	1.00	1.84
34	18	4,224	4,224	1.00	1.63	4,092	4,092	1.00	1.75	3,828	3,828	1.00	1.88
34	20	4,576	4,210	0.92	1.67	4,400	4,048	0.92	1.78	4,136	3,805	0.92	1.91
34	22	4,928	3,942	0.80	1.70	4,752	3,802	0.80	1.83	4,488	3,590	0.80	1.95

Note CA : Capacity (W)
P.C. : Power consumption (kW)
SHC(W) : Sensible heat capacity
SHF : Sensible heat factor

Above data based on indicated voltage
Indoor unit : Single phase 240V 50Hz
Outdoor unit : Single phase 240V 50Hz

COOLING CAPACITY(5)
PMH-P2BA, PMH-P2BA1

Indoor Intake air D.B.(°C)	Indoor Intake air W.B.(°C)	Outdoor intake air D.B.(°C)											
		20				25				30			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	5,346	3,047	0.57	1.88	5,184	2,955	0.57	1.99	5,022	2,863	0.57	2.10
20	18	5,724	2,576	0.45	1.92	5,562	2,503	0.45	2.02	5,373	2,418	0.45	2.16
20	20	6,156	2,031	0.33	1.97	6,021	1,987	0.33	2.07	5,859	1,933	0.33	2.21
22	16	5,346	3,475	0.65	1.88	5,184	3,370	0.65	1.99	5,022	3,264	0.65	2.10
22	18	5,724	3,034	0.53	1.92	5,562	2,948	0.53	2.02	5,373	2,848	0.53	2.16
22	20	6,156	2,524	0.41	1.97	6,021	2,469	0.41	2.07	5,859	2,402	0.41	2.21
24	16	5,346	3,903	0.73	1.88	5,184	3,784	0.73	1.99	5,022	3,666	0.73	2.10
24	18	5,724	3,492	0.61	1.92	5,562	3,393	0.61	2.02	5,373	3,278	0.61	2.16
24	20	6,156	3,016	0.49	1.97	6,021	2,950	0.49	2.07	5,859	2,871	0.49	2.21
24	22	6,561	2,428	0.37	2.02	6,426	2,378	0.37	2.14	6,264	2,318	0.37	2.28
26	16	5,346	4,330	0.81	1.88	5,184	4,199	0.81	1.99	5,022	4,068	0.81	2.10
26	18	5,724	3,950	0.69	1.92	5,562	3,838	0.69	2.02	5,373	3,707	0.69	2.16
26	20	6,156	3,509	0.57	1.97	6,021	3,432	0.57	2.07	5,859	3,340	0.57	2.21
26	22	6,561	2,952	0.45	2.02	6,426	2,892	0.45	2.14	6,264	2,819	0.45	2.28
28	16	5,346	4,758	0.89	1.88	5,184	4,614	0.89	1.99	5,022	4,470	0.89	2.10
28	18	5,724	4,407	0.77	1.92	5,562	4,283	0.77	2.02	5,373	4,137	0.77	2.16
28	20	6,156	4,001	0.65	1.97	6,021	3,914	0.65	2.07	5,859	3,808	0.65	2.21
28	22	6,561	3,477	0.53	2.02	6,426	3,406	0.53	2.14	6,264	3,320	0.53	2.28
30	16	5,346	5,186	0.97	1.88	5,184	5,028	0.97	1.99	5,022	4,871	0.97	2.10
30	18	5,724	4,865	0.85	1.92	5,562	4,728	0.85	2.02	5,373	4,567	0.85	2.16
30	20	6,156	4,494	0.73	1.97	6,021	4,395	0.73	2.07	5,859	4,277	0.73	2.21
30	22	6,561	4,002	0.61	2.02	6,426	3,920	0.61	2.14	6,264	3,821	0.61	2.28
32	16	5,346	5,346	1.00	1.88	5,184	5,184	1.00	1.99	5,022	5,022	1.00	2.10
32	18	5,724	5,323	0.93	1.92	5,562	5,173	0.93	2.02	5,373	4,997	0.93	2.16
32	20	6,156	4,986	0.81	1.97	6,021	4,877	0.81	2.07	5,859	4,746	0.81	2.21
32	22	6,561	4,527	0.69	2.02	6,426	4,434	0.69	2.14	6,264	4,322	0.69	2.28
34	16	5,346	5,346	1.00	1.88	5,184	5,184	1.00	1.99	5,022	5,022	1.00	2.10
34	18	5,724	5,724	1.00	1.92	5,562	5,562	1.00	2.02	5,373	5,373	1.00	2.16
34	20	6,156	5,479	0.89	1.97	6,021	5,359	0.89	2.07	5,859	5,215	0.89	2.21
34	22	6,561	5,052	0.77	2.02	6,426	4,948	0.77	2.14	6,264	4,823	0.77	2.28

Note CA : Capacity (W)
P.C. : Power consumption (kW)
SHC(W) : Sensible heat capacity
SHF : Sensible heat factor

Above data based on indicated voltage
Indoor unit : Single phase 240V 50Hz
Outdoor unit : Single phase 240V 50Hz / 3 phase 415V 50Hz

COOLING CAPACITY(6)
PMH-P2BA, PMH-P2BA1

Indoor Intake air D.B.(°C)	Indoor Intake air W.B.(°C)	Outdoor intake air D.B.(°C)											
		35				40				45			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	4,806	2,739	0.57	2.26	4,590	2,616	0.57	2.42	4,374	2,493	0.57	2.62
20	18	5,184	2,333	0.45	2.31	5,022	2,260	0.45	2.49	4,698	2,114	0.45	2.68
20	20	5,616	1,853	0.33	2.37	5,400	1,782	0.33	2.54	5,076	1,675	0.33	2.73
22	16	4,806	3,124	0.65	2.26	4,590	2,984	0.65	2.42	4,374	2,843	0.65	2.62
22	18	5,184	2,748	0.53	2.31	5,022	2,662	0.53	2.49	4,698	2,490	0.53	2.68
22	20	5,616	2,303	0.41	2.37	5,400	2,214	0.41	2.54	5,076	2,081	0.41	2.73
24	16	4,806	3,508	0.73	2.26	4,590	3,351	0.73	2.42	4,374	3,193	0.73	2.62
24	18	5,184	3,162	0.61	2.31	5,022	3,063	0.61	2.49	4,698	2,866	0.61	2.68
24	20	5,616	2,752	0.49	2.37	5,400	2,646	0.49	2.54	5,076	2,487	0.49	2.73
24	22	6,048	2,238	0.37	2.42	5,832	2,158	0.37	2.61	5,508	2,038	0.37	2.77
26	16	4,806	3,893	0.81	2.26	4,590	3,718	0.81	2.42	4,374	3,543	0.81	2.62
26	18	5,184	3,577	0.69	2.31	5,022	3,465	0.69	2.49	4,698	3,242	0.69	2.68
26	20	5,616	3,201	0.57	2.37	5,400	3,078	0.57	2.54	5,076	2,893	0.57	2.73
26	22	6,048	2,722	0.45	2.42	5,832	2,624	0.45	2.61	5,508	2,479	0.45	2.77
28	16	4,806	4,277	0.89	2.26	4,590	4,085	0.89	2.42	4,374	3,893	0.89	2.62
28	18	5,184	3,992	0.77	2.31	5,022	3,867	0.77	2.49	4,698	3,617	0.77	2.68
28	20	5,616	3,650	0.65	2.37	5,400	3,510	0.65	2.54	5,076	3,299	0.65	2.73
28	22	6,048	3,205	0.53	2.42	5,832	3,091	0.53	2.61	5,508	2,919	0.53	2.77
30	16	4,806	4,662	0.97	2.26	4,590	4,452	0.97	2.42	4,374	4,243	0.97	2.62
30	18	5,184	4,406	0.85	2.31	5,022	4,269	0.85	2.49	4,698	3,993	0.85	2.68
30	20	5,616	4,100	0.73	2.37	5,400	3,942	0.73	2.54	5,076	3,705	0.73	2.73
30	22	6,048	3,689	0.61	2.42	5,832	3,558	0.61	2.61	5,508	3,360	0.61	2.77
32	16	4,806	4,806	1.00	2.26	4,590	4,590	1.00	2.42	4,374	4,374	1.00	2.62
32	18	5,184	4,821	0.93	2.31	5,022	4,670	0.93	2.49	4,698	4,369	0.93	2.68
32	20	5,616	4,549	0.81	2.37	5,400	4,374	0.81	2.54	5,076	4,112	0.81	2.73
32	22	6,048	4,173	0.69	2.42	5,832	4,024	0.69	2.61	5,508	3,801	0.69	2.77
34	16	4,806	4,806	1.00	2.26	4,590	4,590	1.00	2.42	4,374	4,374	1.00	2.62
34	18	5,184	5,184	1.00	2.31	5,022	5,022	1.00	2.49	4,698	4,698	1.00	2.68
34	20	5,616	4,998	0.89	2.37	5,400	4,806	0.89	2.54	5,076	4,518	0.89	2.73
34	22	6,048	4,657	0.77	2.42	5,832	4,491	0.77	2.61	5,508	4,241	0.77	2.77

Note CA : Capacity (W)　　SHC(W) : Sensible heat capacity
P.C. : Power consumption (kW)　　SHF : Sensible heat factor

Above data based on indicated voltage
Indoor unit : Single phase 240V 50Hz
Outdoor unit : Single phase 240V 50Hz / 3 phase 415V 50Hz

2) HEATING CAPACITY

Service Ref.	Indoor intake air D.B.(°C)	Outdoor intake air W.B.(°C)											
		-10		-5		0		5		10		15	
		CA	P.C.	CA	P.C.	CA	P.C.	CA	P.C.	CA	P.C.	CA	P.C.
PMH-P1BA PMH-P1BA1	15	2,159	0.63	2,346	0.69	2,618	0.80	3,434	0.95	3,876	1.06	4,318	1.14
	20	2,074	0.68	2,244	0.74	2,482	0.86	3,315	1.03	3,740	1.14	4,165	1.23
	25	2,006	0.72	2,176	0.81	2,380	0.93	3,128	1.09	3,604	1.22	4,012	1.32
PMH-P1.6BA PMH-P1.6BA1	15	3,175	1.00	3,450	1.11	3,850	1.28	5,050	1.53	5,700	1.70	6,350	1.84
	20	3,050	1.09	3,300	1.19	3,650	1.38	4,875	1.65	5,500	1.84	6,125	1.97
	25	2,950	1.16	3,200	1.29	3,500	1.50	4,600	1.75	5,300	1.96	5,900	2.12
PMH-P2BA PMH-P2BA1	15	3,969	1.43	4,313	1.57	4,813	1.82	6,313	2.18	7,125	2.42	7,938	2.61
	20	3,813	1.55	4,125	1.69	4,563	1.96	6,094	2.35	6,875	2.61	7,656	2.81
	25	3,688	1.65	4,000	1.84	4,375	2.13	5,750	2.49	6,625	2.80	7,375	3.01

Note CA : Capacity (W)
P.C. : Power consumption (kW)

Above data based on indicated voltage
Indoor unit : Single phase 240V 50Hz
Outdoor unit : Single phase 240V 50Hz / 3 phase 415V 50Hz

Cooling capacity correction factors

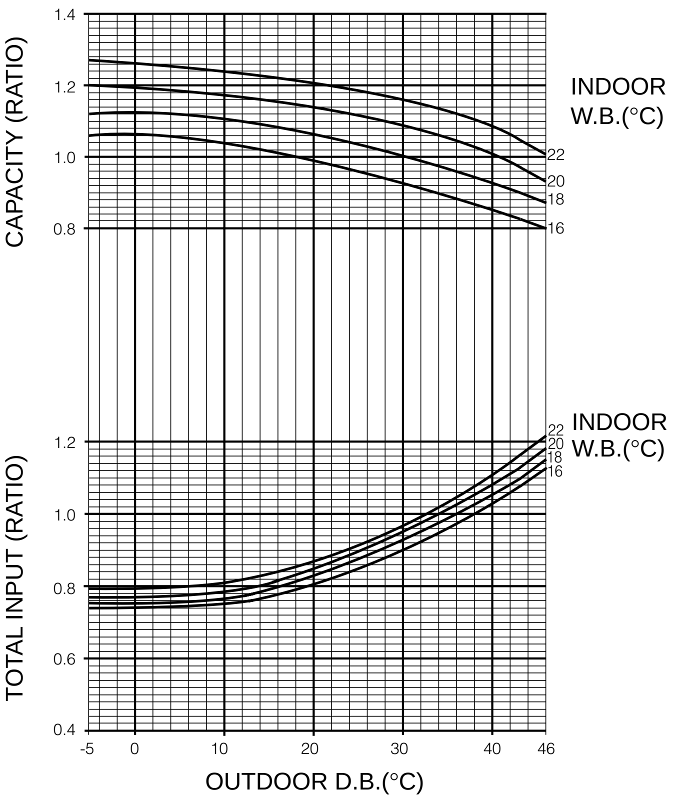
Service Ref.	Refrigerant piping length (one way)									
	5m	10m	15m	20m	25m	30m	35m	40m	45m	50m
PMH-P1BA PMH-P1BA1	1.00	0.993	0.984	0.978	0.969	0.961	—	—	—	—
PMH-P1.6BA PMH-P1.6BA1	1.00	0.993	0.984	0.978	0.969	0.961	0.956	0.948	—	—
PMH-P2BA PMH-P2BA1	1.00	0.993	0.984	0.978	0.969	0.961	0.956	0.948	—	—

Heating capacity correction factors

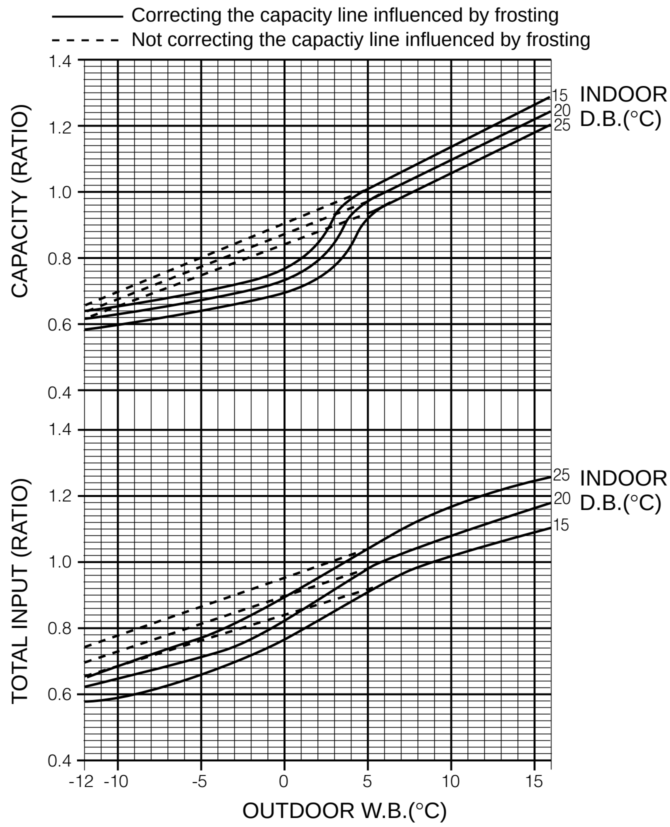
Service Ref.	Refrigerant piping length (one way)									
	5m	10m	15m	20m	25m	30m	35m	40m	45m	50m
PMH-P1BA PMH-P1BA1	1.00	0.998	0.995	0.993	0.990	0.988	—	—	—	—
PMH-P1.6BA PMH-P1.6BA1	1.00	0.998	0.995	0.993	0.990	0.988	0.985	0.983	—	—
PMH-P2BA PMH-P2BA1	1.00	0.998	0.995	0.993	0.990	0.988	0.985	0.983	—	—

6-2. PERFORMANCE CURVE

Cooling performance curve(50Hz)



Heating performance curve(50Hz)



6-3. ELECTRICAL DATA

Indoor unit ··· 220V 50Hz Single phase   Outdoor unit···220V 50Hz Single phase / 380V 50Hz 3phase

Service Ref.		Indoor unit	PMH-P1.6BA				PMH-P2BA			
		Outdoor unit	PUH-P1.6VGA		PUH-P1.6YGA		PUH-P2VGA		PUH-P2YGA	
Mode			Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
Capacity (W)			4,300	4,900	4,300	4,900	5,300	6,150	5,300	6,150
Total Input (kW)			1.54	1.58	1.54	1.58	2.27	2.32	2.27	2.32
Indoor unit	Input (kW)		0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Current (A)		0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Outdoor unit	Starting current (A)		33	33	18	18	68	68	28	28
	Current (A)		7.54	7.96	2.75	2.90	11.13	11.50	4.01	4.14

Indoor unit ··· 230V 50Hz Single phase   Outdoor unit···230V 50Hz Single phase / 400V 50Hz 3phase

Service Ref.		Indoor unit	PMH-P1.6BA				PMH-P2BA			
		Outdoor unit	PUH-P1.6VGA		PUH-P1.6YGA		PUH-P2VGA		PUH-P2YGA	
Mode			Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
Capacity (W)			4,350	4,950	4,350	4,950	5,350	6,200	5,350	6,200
Total Input (kW)			1.59	1.64	1.59	1.64	2.31	2.37	2.31	2.37
Indoor unit	Input (kW)		0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Current (A)		0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Outdoor unit	Starting current (A)		35	35	19	19	71	71	29	29
	Current (A)		7.64	8.05	2.71	2.85	11.05	11.45	3.91	4.06

Indoor unit ··· 240V 50Hz Single phase   Outdoor unit···240V 50Hz Single phase / 415V 50Hz 3phase

Service Ref.		Indoor unit	PMH-P1.6BA				PMH-P2BA			
		Outdoor unit	PUH-P1.6VGA		PUH-P1.6YGA		PUH-P2VGA		PUH-P2YGA	
Mode			Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
Capacity (W)			4,400	5,000	4,400	5,000	5,400	6,250	5.400	6,250
Total Input (kW)			1.65	1.70	1.65	1.70	2.35	2.42	2.35	2.42
Indoor unit	Input (kW)		0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Current (A)		0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Outdoor unit	Starting current (A)		36	36	20	20	74	74	30	30
	Current (A)		7.66	8.19	2.67	2.86	11.11	11.51	3.88	4.02

Indoor unit ··· 220V 50Hz Single phase   Outdoor unit ··· 220V 50Hz Single phase / 380V 50Hz 3phase

Service Ref.	Indoor unit	PMH-P1BA PMH-P1BA$_1$		PMH-P1.6BA PMH-P1.6BA$_1$				PMH-P2BA PMH-P2BA$_1$			
	Outdoor unit	PUH-P1VGAA.UK		PUH-P1.6VGAA.UK		PUH-P1.6YGAA.UK		PUH-P2VGAA.UK		PUH-P2YGAA.UK	
Mode		Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
Capacity (W)		3,050	3,300	4,300	4,900	4,300	4,900	5,300	6,150	5,300	6,150
Total Input (kW)		1.13	1.04	1.54	1.58	1.54	1.58	2.27	2.32	2.27	2.32
Indoor unit	Input (kW)	0.04	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Current (A)	0.19	0.19	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Outdoor unit	Starting current (A)	27	27	33	33	18	18	62	62	31	31
	Current (A)	5.37	4.93	8.03	8.28	2.71	2.80	11.19	11.53	4.05	4.17

Indoor unit ··· 230V 50Hz Single phase   Outdoor unit ··· 230V 50Hz Single phase / 400V 50Hz 3phase

Service Ref.	Indoor unit	PMH-P1BA PMH-P1BA$_1$		PMH-P1.6BA PMH-P1.6BA$_1$				PMH-P2BA PMH-P2BA$_1$			
	Outdoor unit	PUH-P1VGAA.UK		PUH-P1.6VGAA.UK		PUH-P1.6YGAA.UK		PUH-P2VGAA.UK		PUH-P2YGAA.UK	
Mode		Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
Capacity (W)		3,100	3,350	4,350	4,950	4,350	4,950	5,350	6,200	5,350	6,200
Total Input (kW)		1.14	1.05	1.59	1.64	1.59	1.64	2.31	2.37	2.31	2.37
Indoor unit	Input (kW)	0.04	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Current (A)	0.19	0.19	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Outdoor unit	Starting current (A)	29	29	35	35	19	19	62	62	31	31
	Current (A)	5.13	4.72	7.68	7.92	2.58	2.66	10.71	11.03	3.84	3.96

Indoor unit ··· 240V 50Hz Single phase   Outdoor unit ··· 240V 50Hz Single phase / 415V 50Hz 3phase

Service Ref.	Indoor unit	PMH-P1BA PMH-P1BA$_1$		PMH-P1.6BA PMH-P1.6BA$_1$				PMH-P2BA PMH-P2BA$_1$			
	Outdoor unit	PUH-P1VGAA.UK		PUH-P1.6VGAA.UK		PUH-P1.6YGAA.UK		PUH-P2VGAA.UK		PUH-P2YGAA.UK	
Mode		Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
Capacity (W)		3,150	3,400	4,400	5,000	4,400	5,000	5,400	6,250	5.400	6,250
Total Input (kW)		1.15	1.06	1.65	1.70	1.65	1.70	2.35	2.42	2.35	2.42
Indoor unit	Input (kW)	0.04	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Current (A)	0.19	0.19	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Outdoor unit	Starting current (A)	30	30	36	36	20	20	62	62	31	31
	Current (A)	4.92	4.52	7.36	7.59	2.49	2.56	10.26	10.57	3.70	3.82

6-4. STANDARD OPERATION DATA

<table>
<tr><td colspan="4">Service Ref.</td><td colspan="4">PMH-P1.6BA</td><td colspan="4">PMH-P2BA</td></tr>
<tr><td colspan="4">Mode</td><td colspan="2">Cooling</td><td colspan="2">Heating</td><td colspan="2">Cooling</td><td colspan="2">Heating</td></tr>
<tr><td rowspan="2">Total</td><td colspan="2">Capacity</td><td>W</td><td colspan="2">4,400</td><td colspan="2">5,000</td><td colspan="2">5,400</td><td colspan="2">6,250</td></tr>
<tr><td colspan="2">Input</td><td>kW</td><td colspan="2">1.65</td><td colspan="2">1.70</td><td colspan="2">2.35</td><td colspan="2">2.42</td></tr>
<tr><td rowspan="9">Electrical circuit</td><td colspan="3">Indoor unit Service Ref.</td><td colspan="4">PMH-P1.6BA</td><td colspan="4">PMH-P2BA</td></tr>
<tr><td colspan="3">Phase, Hz</td><td colspan="4">1, 50</td><td colspan="4">1, 50</td></tr>
<tr><td colspan="2">Volts</td><td>V</td><td colspan="4">240</td><td colspan="4">240</td></tr>
<tr><td colspan="2">Amperes</td><td>A</td><td colspan="2">0.29</td><td colspan="2">0.29</td><td colspan="2">0.29</td><td colspan="2">0.29</td></tr>
<tr><td colspan="3" rowspan="2">Outdoor unit Service Ref.</td><td colspan="4">PUH-P • GA</td><td colspan="4">PUH-P • GA</td></tr>
<tr><td>1.6V</td><td>1.6Y</td><td>1.6V</td><td>1.6Y</td><td>2V</td><td>2Y</td><td>2V</td><td>2Y</td></tr>
<tr><td colspan="3">Phase, Hz</td><td>1, 50</td><td>3, 50</td><td>1, 50</td><td>3, 50</td><td>1, 50</td><td>3, 50</td><td>1, 50</td><td>3, 50</td></tr>
<tr><td colspan="2">Volts</td><td>V</td><td>240</td><td>415</td><td>240</td><td>415</td><td>240</td><td>415</td><td>240</td><td>415</td></tr>
<tr><td colspan="2">Amperes</td><td>A</td><td>7.66</td><td>2.67</td><td>8.19</td><td>2.86</td><td>11.11</td><td>3.88</td><td>11.51</td><td>4.02</td></tr>
<tr><td rowspan="6">Refrigerant circuit</td><td colspan="2">Discharge pressure</td><td>MPa
(kgf/cm²)</td><td colspan="2">1.99
(20.3)</td><td colspan="2">2.15
(21.9)</td><td colspan="2">2.37
(24.2)</td><td colspan="2">2.52
(25.7)</td></tr>
<tr><td colspan="2">Suction pressure</td><td>MPa
(kgf/cm²)</td><td colspan="2">0.49
(5.0)</td><td colspan="2">0.41
(4.2)</td><td colspan="2">0.49
(5.0)</td><td colspan="2">0.41
(4.2)</td></tr>
<tr><td colspan="2">Discharge temperature</td><td>°C</td><td colspan="2">75</td><td colspan="2">80</td><td colspan="2">86</td><td colspan="2">93</td></tr>
<tr><td colspan="2">Condensing temperature</td><td>°C</td><td colspan="2">46</td><td colspan="2">50</td><td colspan="2">53</td><td colspan="2">53</td></tr>
<tr><td colspan="2">Suction temperature</td><td>°C</td><td colspan="2">5.0</td><td colspan="2">1.2</td><td colspan="2">5.0</td><td colspan="2">1.0</td></tr>
<tr><td colspan="2">Ref. pipe length</td><td>m</td><td colspan="2">5</td><td colspan="2">5</td><td colspan="2">5</td><td colspan="2">5</td></tr>
<tr><td rowspan="3">Indoor side</td><td rowspan="2">Intake air temperature</td><td>D.B.</td><td>°C</td><td colspan="2">27</td><td colspan="2">20</td><td colspan="2">27</td><td colspan="2">20</td></tr>
<tr><td>W.B.</td><td>°C</td><td colspan="2">19</td><td colspan="2">15</td><td colspan="2">19</td><td colspan="2">15</td></tr>
<tr><td>Discharge air temperature</td><td>D.B.</td><td>°C</td><td colspan="2">12.4</td><td colspan="2">47.2</td><td colspan="2">11.4</td><td colspan="2">49.0</td></tr>
<tr><td rowspan="2">Outdoor side</td><td rowspan="2">Intake air temperature</td><td>D.B.</td><td>°C</td><td colspan="2">35</td><td colspan="2">7</td><td colspan="2">35</td><td colspan="2">7</td></tr>
<tr><td>W.B.</td><td>°C</td><td colspan="2">24</td><td colspan="2">6</td><td colspan="2">24</td><td colspan="2">6</td></tr>
<tr><td colspan="4">SHF</td><td colspan="2">0.70</td><td colspan="2">—</td><td colspan="2">0.67</td><td colspan="2">—</td></tr>
<tr><td colspan="4">BF</td><td colspan="2">0.15</td><td colspan="2">—</td><td colspan="2">0.15</td><td colspan="2">—</td></tr>
</table>

The unit of pressure has been changed to Mpa based on international SI system.
The conversion factor is : 1(Mpa)=10.2(kgf/㎠)

<table>
<tr><td colspan="4">Service Ref.</td><td colspan="4">PMH-P1BA
PMH-P1BA$_1$</td><td colspan="4">PMH-P1.6BA
PMH-P1.6BA$_1$</td><td colspan="4">PMH-P2BA
PMH-P2BA$_1$</td></tr>
<tr><td colspan="4">Mode</td><td colspan="2">Cooling</td><td colspan="2">Heating</td><td colspan="2">Cooling</td><td colspan="2">Heating</td><td colspan="2">Cooling</td><td colspan="2">Heating</td></tr>
<tr><td rowspan="2">Total</td><td colspan="2">Capacity</td><td>W</td><td colspan="2">3,150</td><td colspan="2">3,400</td><td colspan="2">4,400</td><td colspan="2">5,000</td><td colspan="2">5,400</td><td colspan="2">6,250</td></tr>
<tr><td colspan="2">Input</td><td>kW</td><td colspan="2">1.15</td><td colspan="2">1.06</td><td colspan="2">1.65</td><td colspan="2">1.70</td><td colspan="2">2.35</td><td colspan="2">2.42</td></tr>
<tr><td rowspan="9">Electrical circuit</td><td colspan="3">Indoor unit Service Ref.</td><td colspan="4">PMH-P1BA
PMH-P1BA$_1$</td><td colspan="4">PMH-P1.6BA
PMH-P1.6BA$_1$</td><td colspan="4">PMH-P2BA
PMH-P2BA$_1$</td></tr>
<tr><td colspan="3">Phase, Hz</td><td colspan="4">1, 50</td><td colspan="4">1, 50</td><td colspan="4">1, 50</td></tr>
<tr><td colspan="2">Volts</td><td>V</td><td colspan="4">240</td><td colspan="4">240</td><td colspan="4">240</td></tr>
<tr><td colspan="2">Amperes</td><td>A</td><td colspan="2">0.19</td><td colspan="2">0.19</td><td colspan="2">0.29</td><td colspan="2">0.29</td><td colspan="2">0.29</td><td colspan="2">0.29</td></tr>
<tr><td colspan="3" rowspan="2">Outdoor unit Service Ref.</td><td colspan="4">PUH-P • GAA.UK</td><td colspan="4">PUH-P • GAA.UK</td><td colspan="4">PUH-P • GAA.UK</td></tr>
<tr><td colspan="2">1V</td><td colspan="2">1V</td><td>1.6V</td><td>1.6Y</td><td>1.6V</td><td>1.6Y</td><td>2V</td><td>2Y</td><td>2V</td><td>2Y</td></tr>
<tr><td colspan="3">Phase, Hz</td><td colspan="2">1, 50</td><td colspan="2">1, 50</td><td>1, 50</td><td>3, 50</td><td>1, 50</td><td>3, 50</td><td>1, 50</td><td>3, 50</td><td>1, 50</td><td>3, 50</td></tr>
<tr><td colspan="2">Volts</td><td>V</td><td colspan="2">240</td><td colspan="2">240</td><td>240</td><td>415</td><td>240</td><td>415</td><td>240</td><td>415</td><td>240</td><td>415</td></tr>
<tr><td colspan="2">Amperes</td><td>A</td><td colspan="2">4.92</td><td colspan="2">4.52</td><td>7.36</td><td>2.49</td><td>7.59</td><td>2.56</td><td>10.26</td><td>3.70</td><td>10.57</td><td>3.82</td></tr>
<tr><td rowspan="6">Refrigerant circuit</td><td colspan="2">Discharge pressure</td><td>MPa
(kgf/cm²)</td><td colspan="2">2.01
(20.5)</td><td colspan="2">1.85
(18.9)</td><td colspan="2">1.99
(20.3)</td><td colspan="2">2.15
(21.9)</td><td colspan="2">2.37
(24.2)</td><td colspan="2">2.52
(25.7)</td></tr>
<tr><td colspan="2">Suction pressure</td><td>MPa
(kgf/cm²)</td><td colspan="2">0.55
(5.6)</td><td colspan="2">0.44
(4.2)</td><td colspan="2">0.49
(5.0)</td><td colspan="2">0.41
(4.2)</td><td colspan="2">0.49
(5.0)</td><td colspan="2">0.41
(4.2)</td></tr>
<tr><td colspan="2">Discharge temperature</td><td>°C</td><td colspan="2">71</td><td colspan="2">70</td><td colspan="2">75</td><td colspan="2">80</td><td colspan="2">86</td><td colspan="2">93</td></tr>
<tr><td colspan="2">Condensing temperature</td><td>°C</td><td colspan="2">48</td><td colspan="2">44</td><td colspan="2">46</td><td colspan="2">50</td><td colspan="2">53</td><td colspan="2">53</td></tr>
<tr><td colspan="2">Suction temperature</td><td>°C</td><td colspan="2">8.0</td><td colspan="2">4.0</td><td colspan="2">5.0</td><td colspan="2">1.2</td><td colspan="2">5.0</td><td colspan="2">1.0</td></tr>
<tr><td colspan="2">Ref. pipe length</td><td>m</td><td colspan="2">5</td><td colspan="2">5</td><td colspan="2">5</td><td colspan="2">5</td><td colspan="2">5</td><td colspan="2">5</td></tr>
<tr><td rowspan="3">Indoor side</td><td rowspan="2">Intake air temperature</td><td>D.B.</td><td>°C</td><td colspan="2">27</td><td colspan="2">20</td><td colspan="2">27</td><td colspan="2">20</td><td colspan="2">27</td><td colspan="2">20</td></tr>
<tr><td>W.B.</td><td>°C</td><td colspan="2">19</td><td colspan="2">15</td><td colspan="2">19</td><td colspan="2">15</td><td colspan="2">19</td><td colspan="2">15</td></tr>
<tr><td>Discharge air temperature</td><td>D.B.</td><td>°C</td><td colspan="2">13.3</td><td colspan="2">41.5</td><td colspan="2">12.4</td><td colspan="2">47.2</td><td colspan="2">11.4</td><td colspan="2">49.0</td></tr>
<tr><td rowspan="2">Outdoor side</td><td rowspan="2">Intake air temperature</td><td>D.B.</td><td>°C</td><td colspan="2">35</td><td colspan="2">7</td><td colspan="2">35</td><td colspan="2">7</td><td colspan="2">35</td><td colspan="2">7</td></tr>
<tr><td>W.B.</td><td>°C</td><td colspan="2">24</td><td colspan="2">6</td><td colspan="2">24</td><td colspan="2">6</td><td colspan="2">24</td><td colspan="2">6</td></tr>
<tr><td colspan="4">SHF</td><td colspan="2">0.77</td><td colspan="2">—</td><td colspan="2">0.70</td><td colspan="2">—</td><td colspan="2">0.67</td><td colspan="2">—</td></tr>
<tr><td colspan="4">BF</td><td colspan="2">0.09</td><td colspan="2">—</td><td colspan="2">0.15</td><td colspan="2">—</td><td colspan="2">0.15</td><td colspan="2">—</td></tr>
</table>

The unit of pressure has been changed to Mpa based on international SI system.
The conversion factor is : 1(Mpa)=10.2(kgf/㎠)

6-5. OUTLET AIR SPEED AND COVERAGE RANGE

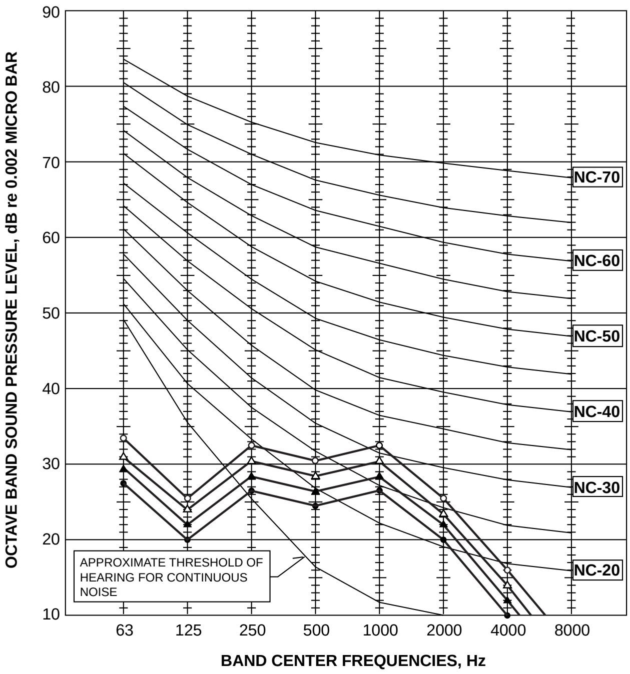
			PMH-P1BA PMH-P1BA$_1$	**PMH-P1.6BA PMH-P1.6BA$_1$**	**PMH-P2BA PMH-P2BA$_1$**
Standard	Air flow	m³/min	8.4	10.0	11.0
	Air speed	m/sec.	3.7	4.3	4.7
	Coverage range	m	5.9	7.0	7.7

※ The air coverage range is the value up to the position where the air speed is 0.25m/sec.
When air is blown out horizontally from the unit at the Hi notch position.
The coverage range should be used only as a general guideline since it varies according to the size of the room and the furniture inside the room.

6-6. NOISE CRITERION CURVES

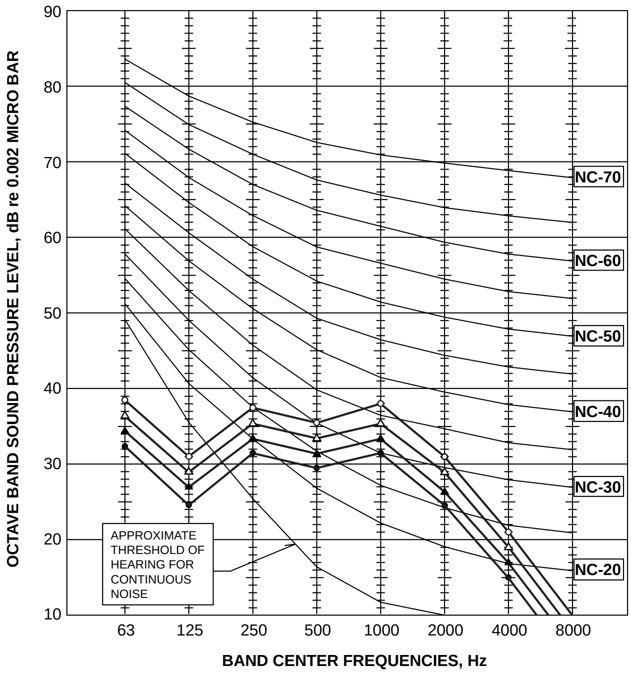
PMH-P1BA
PMH-P1BA1

NOTCH	SPL(dB)	LINE
Hi	35	○—○
Mi1	33	△—△
Mi2	31	▲—▲
Lo	29	●—●



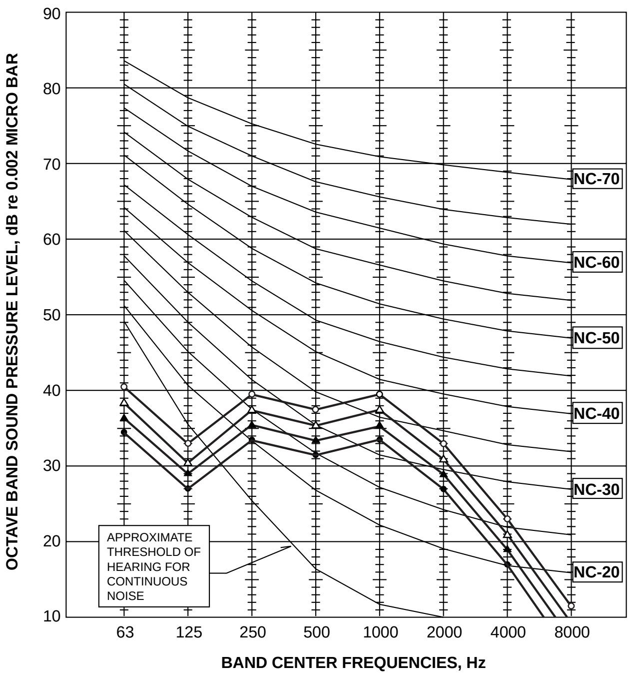
PMH-P1.6BA
PMH-P1.6BA1

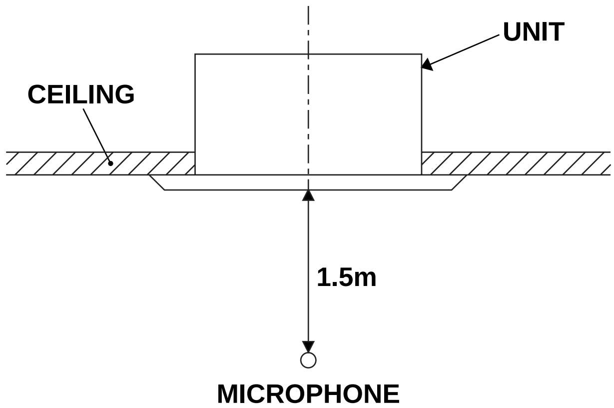
NOTCH	SPL(dB)	LINE
Hi	40	○—○
Mi1	38	△—△
Mi2	36	▲—▲
Lo	34	●—●



PMH-P2BA
PMH-P2BA1

NOTCH	SPL(dB)	LINE
Hi	42	○—○
Mi1	40	△—△
Mi2	38	▲—▲
Lo	36	●—●





Ambient temperature 27℃

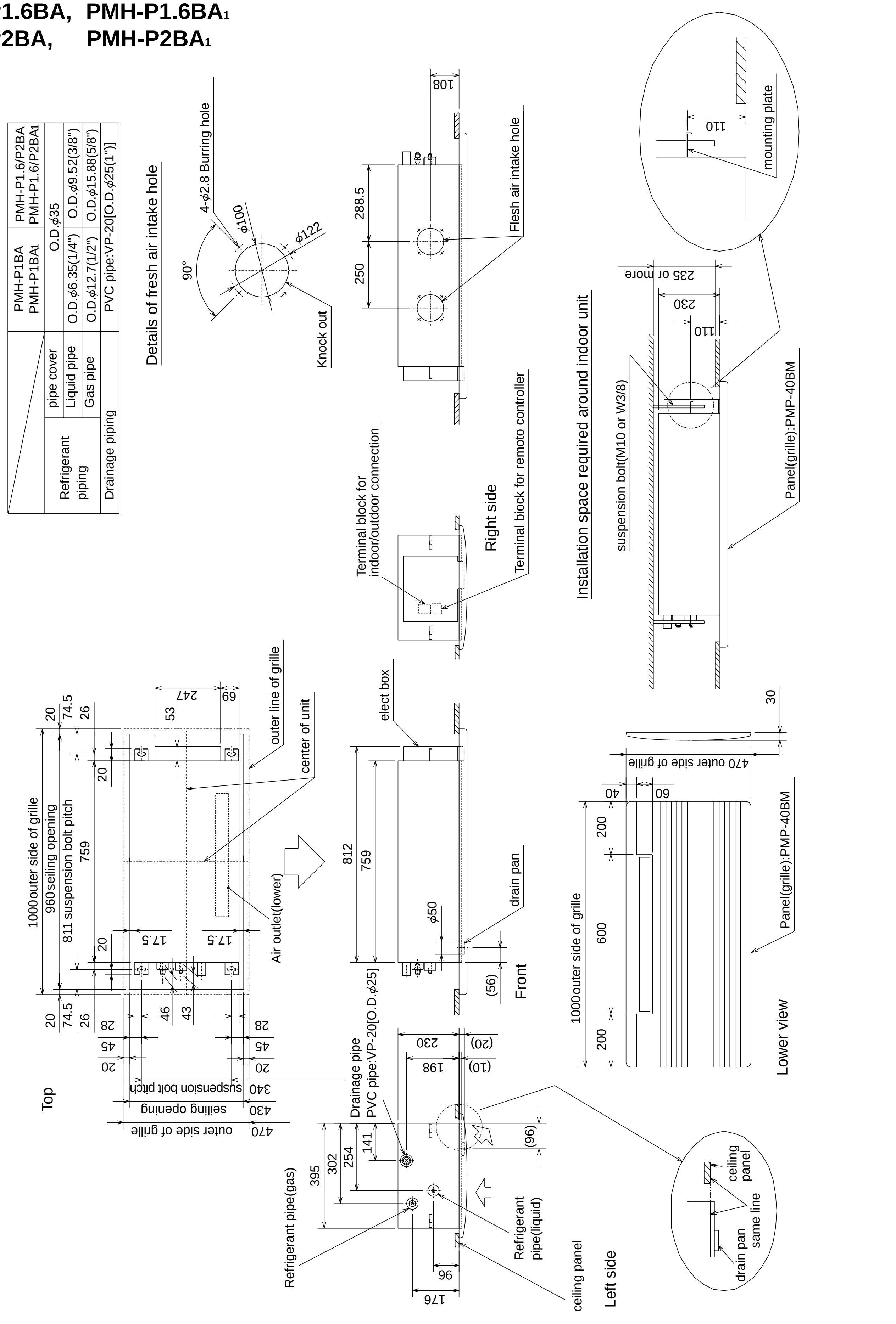
Test conditions are based on JIS Z8731

7 OUTLINES AND DIMENSIONS

PMH-P1BA, PMH-P1BA1
PMH-P1.6BA, PMH-P1.6BA1
PMH-P2BA, PMH-P2BA1

Unit : mm

		PMH-P1BA PMH-P1BA1	PMH-P1.6/P2BA PMH-P1.6/P2BA1
Refrigerant piping	pipe cover	O.D.ϕ35	
	Liquid pipe	O.D.ϕ6.35(1/4")	O.D.ϕ9.52(3/8")
	Gas pipe	O.D.ϕ12.7(1/2")	O.D.ϕ15.88(5/8")
Drainage piping		PVC pipe:VP-20[O.D.ϕ25(1")]	



8 WIRING DIAGRAM

PMH-P1BA, PMH-P1.6BA, PMH-P2BA
PMH-P1BA1, PMH-P1.6BA1, PMH-P2BA1

[LEGEND]

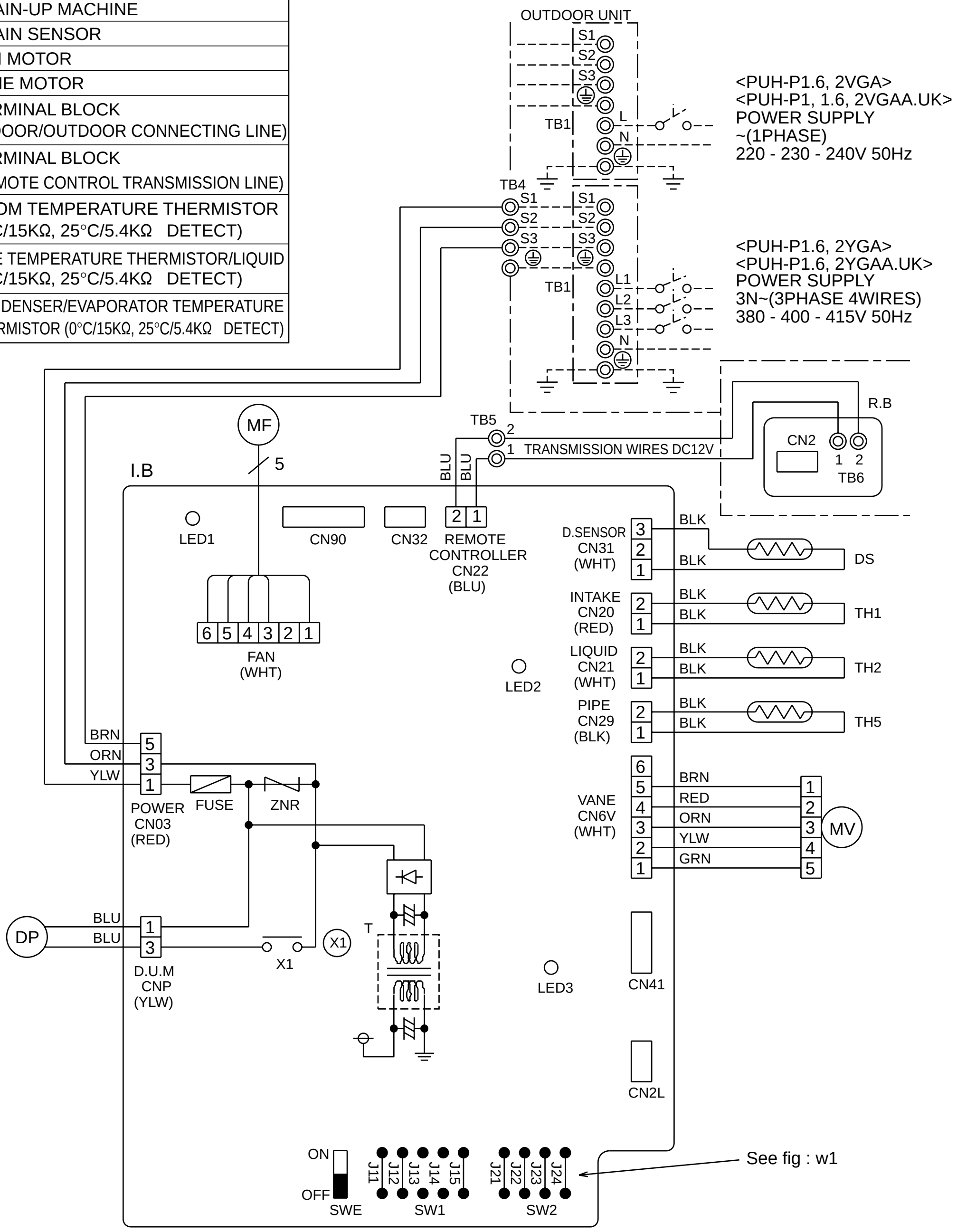
SYMBOL		NAME
I.B		INDOOR CONTROLLER BOARD
	CN2L	CONNECTOR (LOSSNAY)
	CN32	CONNECTOR (REMOTE SWITCH)
	CN41	CONNECTOR (HA TERMINAL-A)
	FUSE	FUSE (6.3A, 250V)
	LED1	POWER SUPPLY (I.B)
	LED2	POWER SUPPLY (R.B)
	LED3	TRANSMISSION (INDOOR-OUTDOOR)
	SW1	JUMPER WIRE (MODEL SELECTION)
	SW2	JUMPER WIRE (CAPACITY CODE)
	SWE	SWITCH (EMERGENCY OPERATION)
	T	TRANSFORMER
	X1	RELAY (DRAIN PUMP)
	ZNR	VARISTOR
R.B		REMOTE CONTROLLER BOARD
	CN2	CONNECTOR (PROGRAM TIMER)
	TB6	TERMINAL BLOCK (REMOTE CONTROLLER TRAMSMISSION LINE)
DP		DRAIN-UP MACHINE
DS		DRAIN SENSOR
MF		FAN MOTOR
MV		VANE MOTOR
TB4		TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)
TB5		TERMINAL BLOCK (REMOTE CONTROL TRANSMISSION LINE)
TH1		ROOM TEMPERATURE THERMISTOR (0°C/15KΩ, 25°C/5.4KΩ DETECT)
TH2		PIPE TEMPERATURE THERMISTOR/LIQUID (0°C/15KΩ, 25°C/5.4KΩ DETECT)
TH5		CONDENSER/EVAPORATOR TEMPERATURE THERMISTOR (0°C/15KΩ, 25°C/5.4KΩ DETECT)

NOTES:
1.Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
2.Indoor and outdoor connecting wires are made with polarities, make wiring matching terminal numbers(S1, S2, S3).
3.Symbols used in wiring diagram above are, ▭▭▭ :Connector, ◎:Terminal (block).

> Please set the voltage using the remote controller.
> For the setting method, please refer to the indoor unit Installation Manual.

<w1>

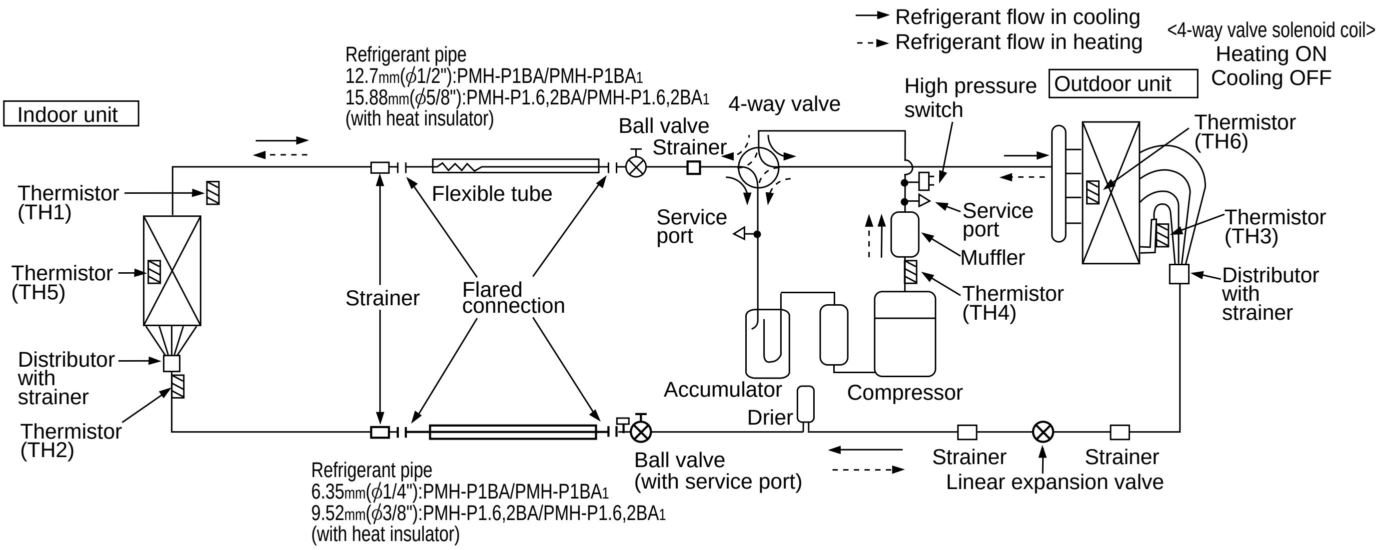
	MODELS	Manufacture	Service board
SW1	PMH-P1/1.6/2BA PMH-P1/1.6/2BA1	J11 J12 J13 J14 J15	J11 J12 J13 J14 J15
SW2	PMH-P1BA PMH-P1BA1	J21 J22 J23 J24	1 2 3 4 ON OFF
	PMH-P1.6BA PMH-P1.6BA1	J21 J22 J23 J24	1 2 3 4 ON OFF
	PMH-P2BA PMH-P2BA1	J21 J22 J23 J24	1 2 3 4 ON OFF



9 REFRIGERANT SYSTEM DIAGRAM

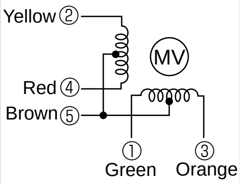
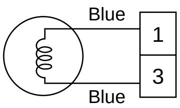
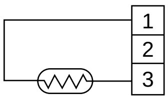
PMH-P1BA, PMH-P1BA1 / PUH-P1VGAA.UK
PMH-P1.6BA / PUH-P1.6VGA , PUH-P1.6VGAA.UK ,
PUH-P1.6YGA , PUH-P1.6YGAA.UK
PMH-P1.6BA1 / PUH-P1.6VGAA.UK , PUH-P1.6YGAA.UK
PMH-P2BA / PUH-P2VGA , PUH-P2VGAA.UK ,
PUH-P2YGA , PUH-P2YGAA.UK
PMH-P2BA1 / PUH-P2VGAA.UK , PUH-P2YGAA.UK

Unit : mm



10 TROUBLE SHOOTING

How to check the parts PMH-P1BA, PMH-P1.6BA, PMH-P2BA PMH-P1BA1, PMH-P1.6BA1, PMH-P2BA1

<table>
<tr><th>Parts name</th><th>Check points</th></tr>
<tr><td>Room temperature thermistor (TH1)
Pipe temperature thermistor (TH2)
Condenser/evaporator temperature thermistor (TH5)</td><td>Disconnect the connector then measure the resistance using a tester.
(Surrounding temperature 10℃~30℃)<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>4.3kΩ~9.6kΩ</td><td>Open or short</td></tr></table>(Refer to page 34 in detail.)</td></tr>
<tr><td>Vane motor
</td><td>Measure the resistance between the terminals using a tester.
(Surrounding temperature 20℃~30℃)<table><tr><th>Connector</th><th>Normal</th><th>Abnormal</th></tr><tr><td>Brown — Yellow</td><td rowspan="4">380Ω ±7%</td><td rowspan="4">Open or short</td></tr><tr><td>Brown — Red</td></tr><tr><td>Brown — Orange</td></tr><tr><td>Brown — Green</td></tr></table></td></tr>
<tr><td>Drain-up mechanism
</td><td>Measure the resistance between the terminals using a tester.
(Surrounding temperature 20℃)<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>400Ω~480Ω</td><td>Open or short</td></tr></table></td></tr>
<tr><td>Drain sensor
</td><td>Measure the resistance between the terminals using a tester.
(Surrounding temperature 20℃~30℃)<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>0.6kΩ~6.0kΩ</td><td>Open or short</td></tr></table>(Refer to page 34 in detail.)</td></tr>
</table>

Check method of indoor fan motor (fan motor / control p.c.board)

① Notes

- High voltage is applied to the connecter (FAN) for the fan motor. Give attention to the service.
- Do not pull out the connector (Fan) for the motor with the power supply on. (It causes trouble of the control p.c.board)

② Self check

Conditions : The indoor fan cannot turn around.

Wiring contact check
Contact of fan motor connector (FAN)
Contact of power supply cable.

↓

Was contact caused good? → N0 → Wiring recovery

↓Yes

Fan motor check
Measure the resistance between the fan motor connecter ①(+) and ③(–).
(With the connecter is pulled out from the p.c.board)

↓

Is the resistance 1MΩ or more? → N0 → Trouble of the fan motor Replacement of the motor

↓Yes

Power supply check
Check the voltage in the indoor control p.c.board
Approx. 310~340V between the connecter (FAN) ①(+) and ③(–).
Approx. 1~3V between the connecter (FAN) ⑤(+) and ③(–).
(The voltage between the ⑤ and ③ is a value during the fan motor operation.
In the case that the fan motor off, the voltage is 0V.)

↓

Is the voltage normal? → N0 → Trouble of the indoor p.c.board
Replacement of the indoor control p.c.board

↓Yes

Fan motor position sensor signal check
Turn around the fan motor more than one revolution slowly, and check the voltage between the connecter (FAN) ⑥(+) and ③(–).

↓

Dose the voltage repeat DC0V and DC15V? → N0 → Trouble of the fan motor
Replacement of the motor

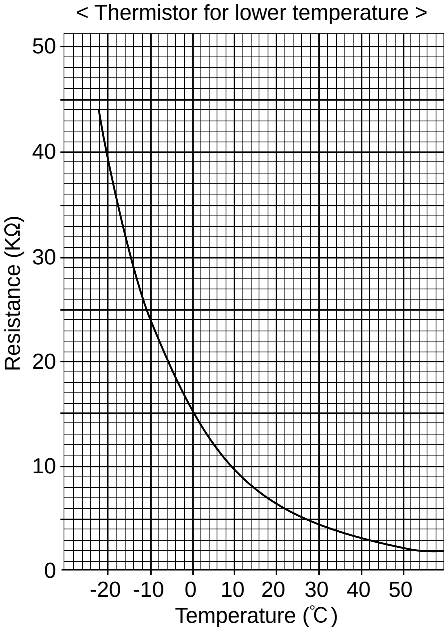
↓Yes

Replacement of the indoor control p.c.board

<Thermistor Characteristic graph>

Thermistor for lower temperature

Room temperature thermistor(TH1)
Pipe temperature thermistor(TH2)
Condenser/evaporator temperature thermistor(TH5)

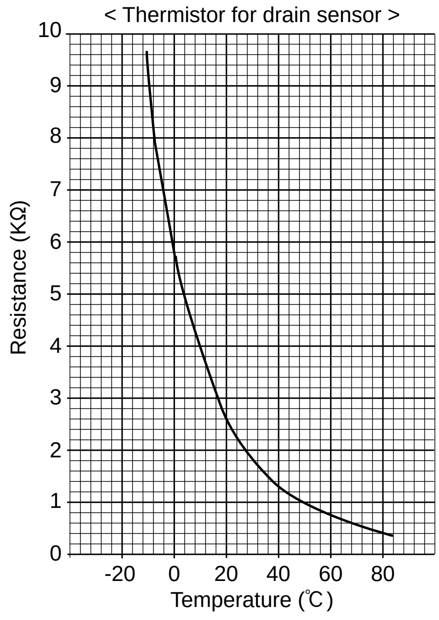


Thermistor R_0=15kΩ ± 3%
Fixed number of B=3480kΩ ± 2%

$$Rt=15\exp\left\{3480\left(\frac{1}{273+t}-\frac{1}{273}\right)\right\}$$

0℃	15kΩ
10℃	9.6kΩ
20℃	6.3kΩ
25℃	5.4kΩ
30℃	4.3kΩ
40℃	3.0kΩ

Thermistor for drain sensor



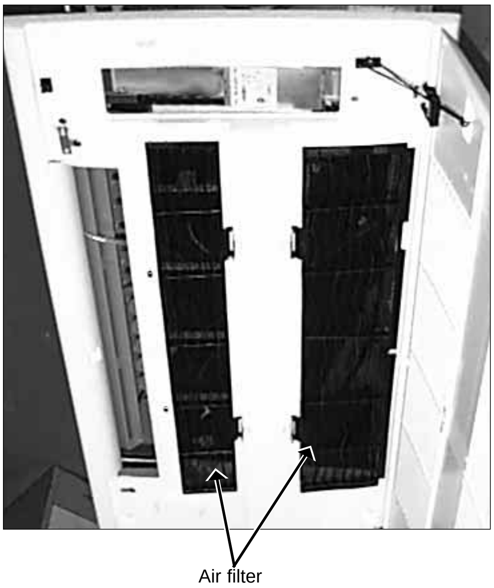
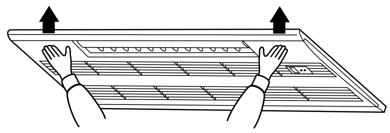
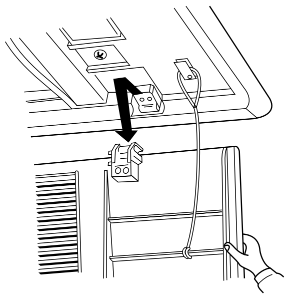
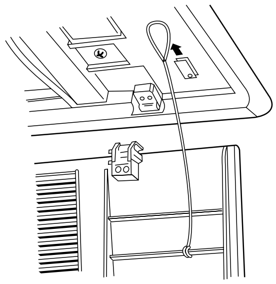
Thermistor R_0=6.0kΩ ±5%
Fixed number of B=3390kΩ ±2%

$$Rt=6\exp\left\{3390\left(\frac{1}{273+t}-\frac{1}{273}\right)\right\}$$

0℃	6.0kΩ
10℃	3.9kΩ
20℃	2.6kΩ
25℃	2.2kΩ
30℃	1.8kΩ
40℃	1.3kΩ

PMH-P1BA, PMH-P1BA1
PMH-P1.6BA, PMH-P1.6BA1, PMH-P2BA, PMH-P2BA1

Be careful on removing heavy parts.

OPERATING PROCEDURE	PHOTOS&ILLUSTRATIONS
1. Removing the intake grille Opening the air intake grille (1) Press the PUSH of the air intake grille.(See figure 1) (2) Put your figure on the both end of nut of the air intake grille and put it down after the grille clicked.	**Photo 1** 
Removing the air intake grille (1) Press the PUSH of air intake grille, and pull down the both end of nut with your fingers after the grille clicked. (See figure 1) (2) Pull out the handle of air intake grille strong toward you. (See figure 2) (3) Draw the string of air intake grille to prevent the grille from dropping.(see figure 3)	**Figure 1**  **Figure 2**  **Figure 3** 

OPERATING PROCEDURE	PHOTOS&ILLUSTRATIONS

2. Removing the electrical parts box

(1) Remove the panel.
(2) Remove the cover.
(3) Remove the electrical parts cover.
(4) Disconnect the connectors of fan motor, vane motor, drain pump, room temperature thermistor, pipe temperature thermistor, condenser/evaporator temperature thermistor and drain sensor on the electrical controller board.
(5) Disconnect the lead wire and earth wire from terminal block.
(6) Remove tne electrical parts box.

Photo 2

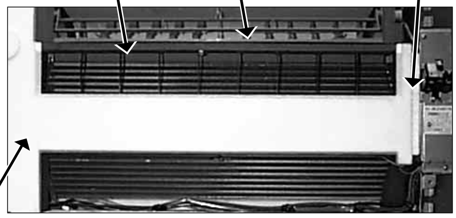
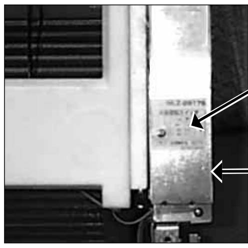


Photo 3



3. Removing the stabilizer

Note when the stabilizer is removed

- **Since the insulation material (white) which prevents waterdrops from putting is mounted to the side of vane motor, remove the insulation material when the stabilizer is removed.(See figure 4)**
- **After completing the service, mount the insulation material as before as shown in right figure.**
- **Since the insulation material to prevent water-drops from putting consists of double layer of soft and hard materials, mount the insulation material so that the hard material faces to the stabilizer side.**

(1) Remove the panel.
(2) Remove the room temperature thermistor.
(3) Unhook the claw in the middle of stabilizer and remove the drain pan. (5 screws) (See photo 2)
(4) Remove the stabilizer side of the heat exchanger. (2 screws)
(5) Remove the cover.
(6) Remove the electrical parts cover.
(7) Disconnect the connector of vane motor.
(8) Remove the insulation material (white) on the right side of stabilizer.
(9)Remove the stabilizer. (6 screws)

Photo 4

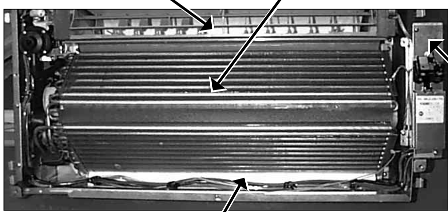
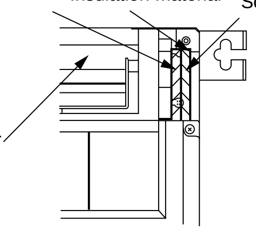


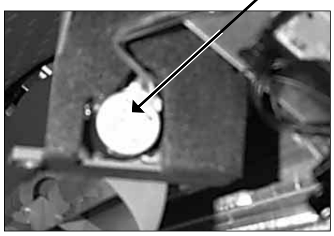
Figure 4



4. Removing the vane motor

(1) Remove the stabilizer. Refer to above-mentioned (3) Removing the stabilizer.
(2) Remove the vane motor.

Photo 5

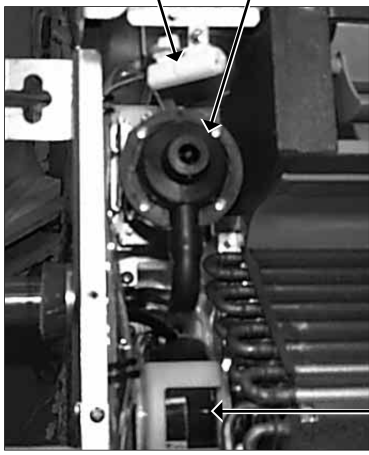


OPERATING PROCEDURE	PHOTOS&ILLUSTRATIONS

5. Removing the drain pump

(1) Remove the panel.
(2) Unhook the claw in the middle of stabilizer and remove the drain pan.
(3) Remove the cover.
(4) Remove the electrical parts cover.
(5) Disconnect the connector of drain pump.
(6) Remove the drain hose.
(7) Remove the drain pump.(2 screws)

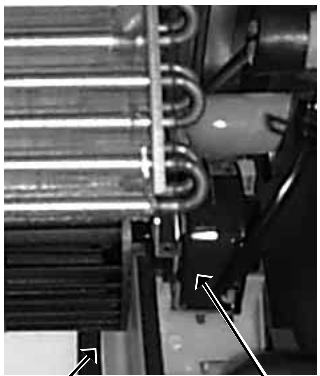
Photo 6



6. Removing the fan motor and line flow fan

(1) Remove the panel.
(2) Unhook the claw in the middle of stabilizer and remove the drain pan.
(3) Unscrew 2 screws at the stabilizer side of the heat exchanger
(4) Remove the cover.
(5) Remove the electrical parts cover.
(6) Disconnect the connectors of vane motor, fan motor and drain pump.
(7) Remove the stabilizer side of the heat exchanger. (2 screws)
(8) Remove the stabilizer.
(9) Remove the drain pump.
(10) Unscrew 2 screws in the motor support.
(11) Remove the fan motor and line flow fan (The fan motor and line flow fan can be removed without removing the heat exchanger.)

Photo 7



7. Removing the thermistor<Room temperature thermistor>

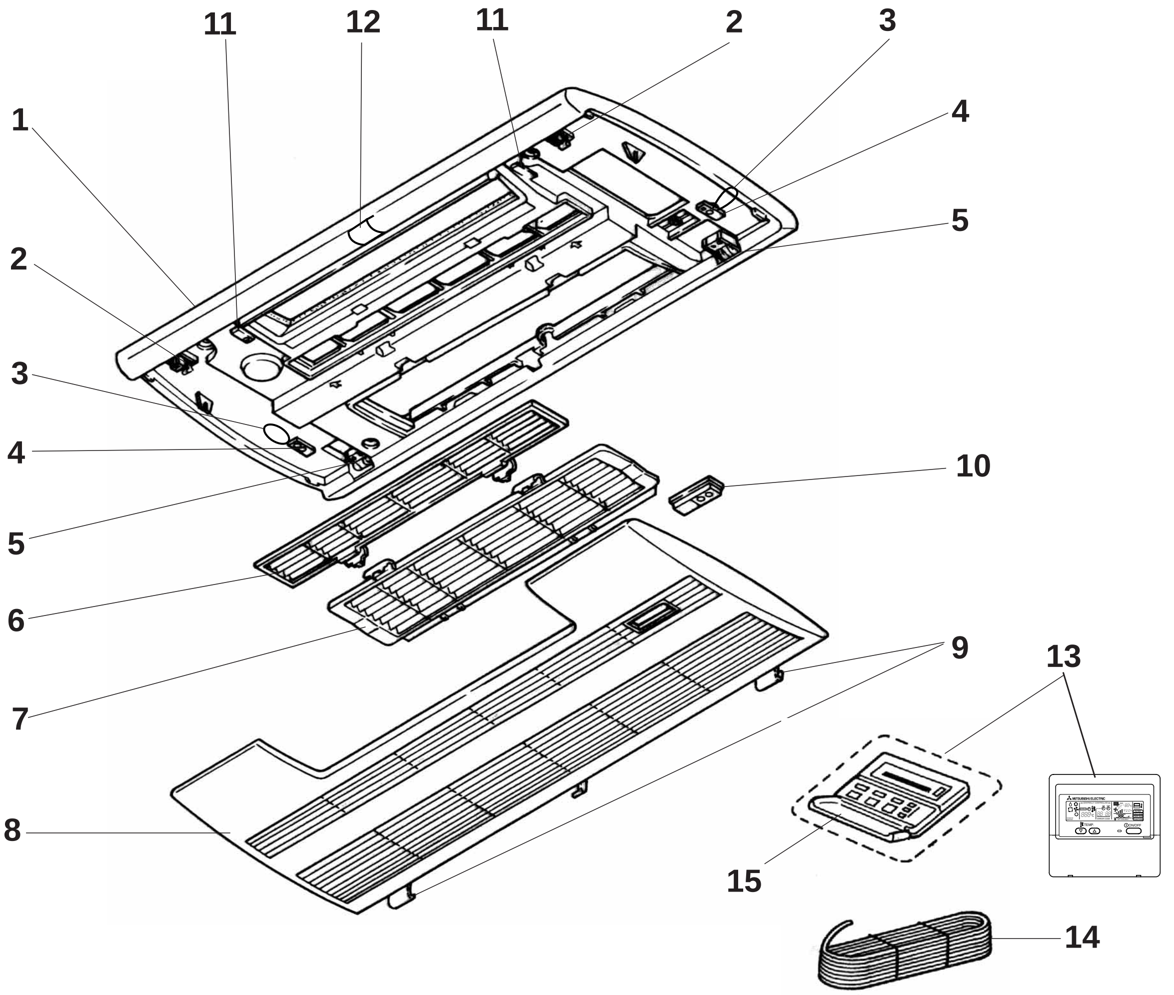
(1) Remove the panel.
(2) Bring down the electrical parts box and remove the cover.
(3) Remove the thermistor <Room temperature thermistor>
(4) Disconnect the lead wire from the cord clamp (5 points)
(5) Disconnect the connector (CN20) on the indoor controller board.

8. Removing the thermistor<Pipe temperature thermistor/liquid> <Condenser/evaporator temperature thermistor>

(1) Remove the panel.
(2) Bring down the electrical parts box and remove the cover.
(3) Remove the drain pan.
(4) Remove the thermistor <Pipe temperature thermistor/liquid> /<Condenser/evaporator temperature thermistor>.
(5) Disconnect the lead wire from the cord clamp
(6) Disconnect the connector (CN29)/(CN21) on the indoor controller board.

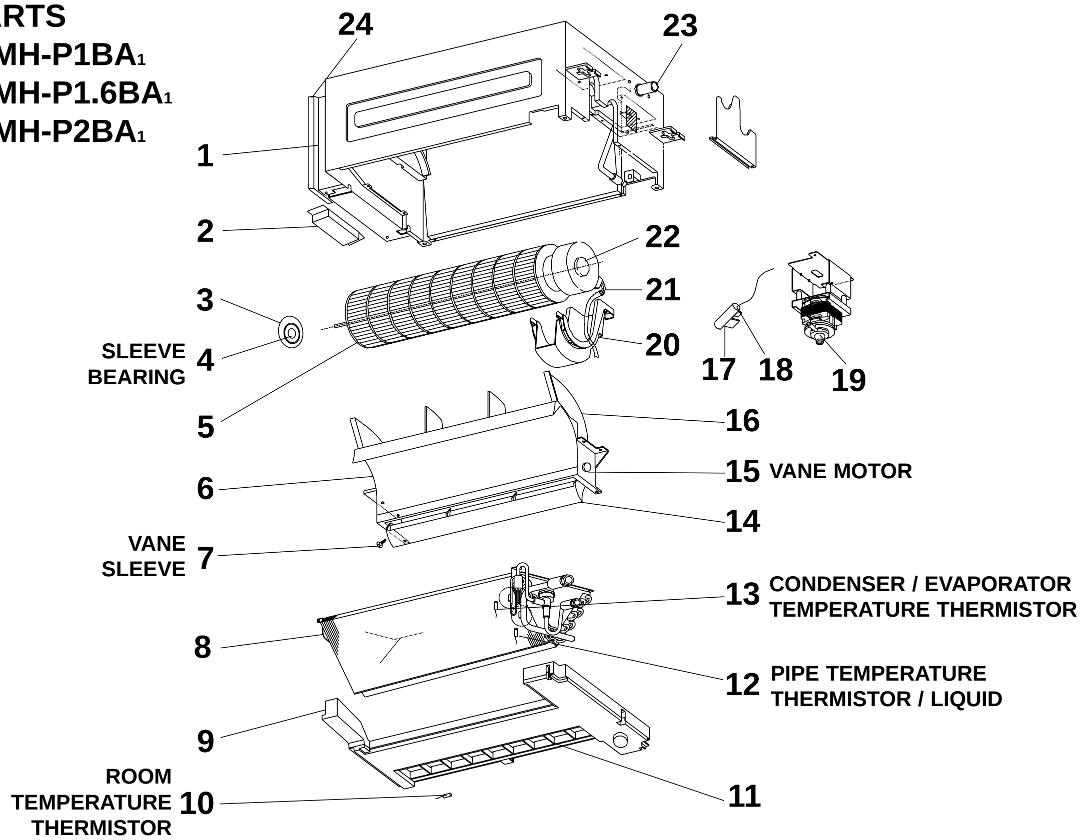
12 PARTS LIST

PANEL PARTS
PMH-P1BA , PMH-P1BA1
PMH-P1.6BA , PMH-P1.6BA1
PMH-P2BA , PMH-P2BA1



No.	Part No.	Part Name	Specification	Q'ty/set		Remarks (Drawing No.)	Wiring Diagram Symbol	Recom-mended Q'ty	Price	
				PMH-P1/1.6/2					Unit	Amount
				BA	BA1					
1	T7W E11 003	AIR OUTLET GRILLE		1	1					
2	R01 E00 055	LATCH		2	2					
3	—	HANGER		2	2	(DT88D360H03)				
4	R01 E00 099	PANEL HOOK		2	2					
5	R01 E01 054	GRILLE CATCH		2	2					
6	R01 E01 500	LL.FILTER		1	1					
7	R01 E02 500	LL.FILTER		1	1					
8	T7W E01 691	INTAKE GRILLE		1	1					
9	R01 E00 054	GRILLE CATCH		2	2					
10	R01 E00 648	RECEIVER COVER		1	1					
11	R01 E00 044	MAGNET		2	2					
12	R01 E00 096	SCREW CAP		1	1					
13	T7W E00 713	REMOTE CONTROLLER		1						
	T7W E06 713	REMOTE CONTROLLER			1					
14	T7W A00 305	REMOTE CONTROLLER CABLE		1	1					
15	T7W E04 049	REMOTE CONTROLLER COVER		1						

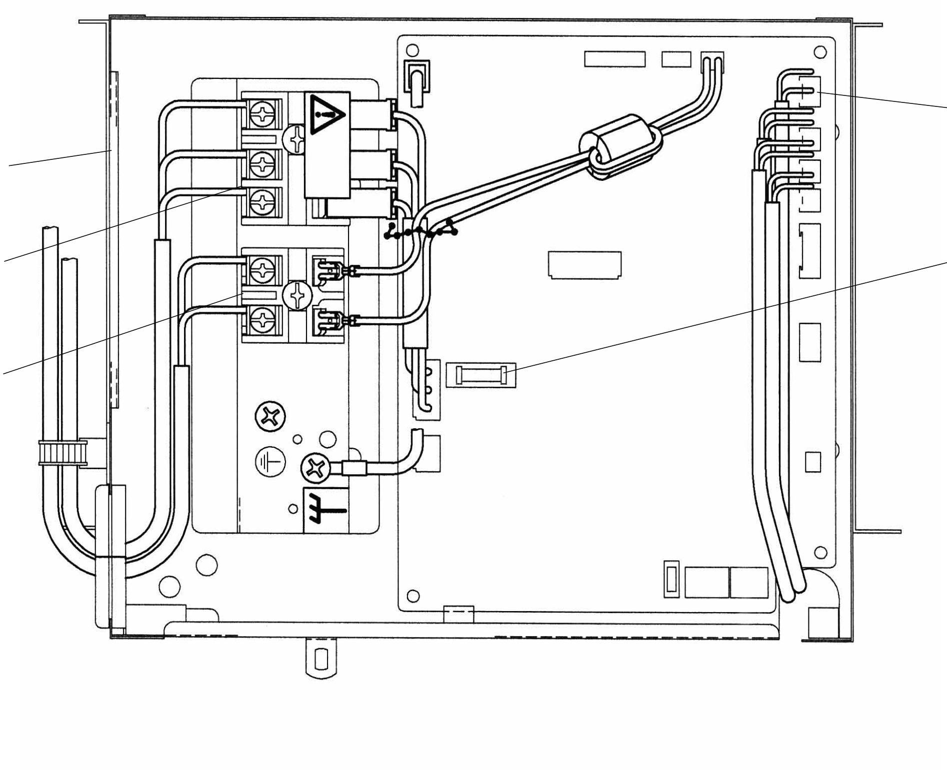
FUNCTIONAL PARTS
PMH-P1BA , PMH-P1BA1
PMH-P1.6BA , PMH-P1.6BA1
PMH-P2BA , PMH-P2BA1



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set PMH-P·BA PMH-P·BA1			Remarks (Drawing No.)	Wiring Diagram Symbol	Recom-mended Q'ty	Price	
				1	1.6	2				Unit	Amount
1	—	CABINET		1	1	1	(DT00A478G78)				
2	—	COVER		1	1	1	(RG02L277H02)				
3	R01 22A 102	BEARING MOUNT		1	1	1					
4	R01 005 103	SLEEVE BEARING		1	1	1					
5	R01 E02 114	LINE FLOW FAN		1	1	1					
6	R01 E00 079	STABILIZER ASSY		1	1	1					
7	R01 E00 092	VANE SLEEVE		1	1	1					
8	T7W E69 480	HEAT EXCHANGER		1							
	T7W E70 480	HEAT EXCHANGER			1	1					
9	R01 E04 529	DRAIN PAN		1	1	1					
10	R01 E00 202	ROOM TEMPERATURE THERMISTOR		1	1	1		TH1			
11	R01 E00 038	GUIDE VANE		1	1	1					
12	R01 E41 202	PIPE TEMPERATURE THERMISTOR / LIQUID		1	1	1		TH2			
13	R01 E44 202	CONDENSER / EVAPORATOR TEMPERATURE THERMISTOR		1	1	1		TH5			
14	R01 E01 002	VANE		1	1	1					
15	R01 E01 223	VANE MOTOR		1	1	1		MV			
16	R01 E00 110	CASING		1	1	1					
17	R01 31K 241	SENSOR HOLDER		1	1	1					
18	R01 E01 266	DRAIN SENSOR		1	1	1		DS			
19	T7W E02 355	DRAIN PUMP		1	1	1		DP			
20	R01 E00 130	MOTOR SUPPORT		1	1	1					
21	R01 E03 220	FAN MOTOR		1	1	1		MF			
22	R01 E01 105	MOTOR MOUNT		1	1	1					
23	R01 E00 527	DRAIN PIPE		1	1	1					
24	—	CONTROL BOX COVER		1	1	1	(RG00L311G08)				
㉕	R01 E01 673	SCREW ASSY		1	1	1					

ELECTRICAL PARTS
PMH-P1BA , PMH-P1BA1
PMH-P1.6BA , PMH-P1.6BA1
PMH-P2BA , PMH-P2BA1



No.	Part No.	Part Name	Specification	Q'ty/set PMH-P1/1.6/2 BA	Q'ty/set PMH-P1/1.6/2 BA1	Remarks (Drawing No.)	Wiring Diagram Symbol	Recom-mended Q'ty	Price Unit	Price Amount
1	—	CONTROL BOX		1	1	(RG02B337G10)				
2	T7W E13 716	TERMINAL BLOCK	3P (S1, S2, S3)	1	1		TB4			
3	T7W 515 716	TERMINAL BLOCK	2P (1, 2)	1	1		TB5			
4	T7W 520 239	FUSE	250V 6.3A	1	1		FUSE			
5	T7W E13 310	INDOOR CONTROLLER BOARD		1	1		I.B			

13 OPTIONAL PARTS

13-1. TIMER

Part No.	PAC-SC32PTA (with set back function)
Model Name	Program timer

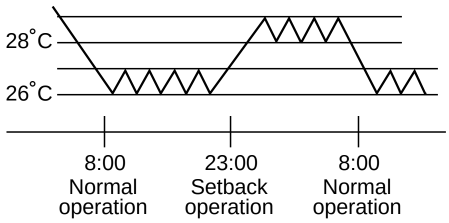
13-1-1. Program timer specifications

Part name	Program timer
Parts No.	PAC-SC32PTA
Exterior dimensions (inch)	5-4/32×4-23/32×23/32 (130×120×18mm)
Installation	Wall mount
Type of clock	Quartz
Clock accuracy	±50 second / month at 25℃
Display-Time -Week -Timer setting unit	Liquid crystal display Liquid crystal display Liquid crystal display
Program cycle	24 hours
Timer setting unit	30 minutes
No. of set points	48 / day
Power rating	5V DC ±5% (Supplied by Remote Controller)

13-1-2. Feature of program timer

(1) Daily timer function
Daily timer can be set in 30 minutes units for up to 24 hours.
Each unit can be set for unit ON, unit OFF, or setback operation.

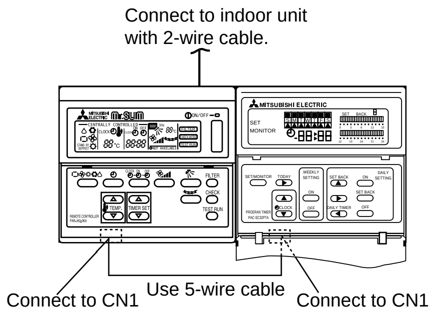
(2) Setback operation
Set back operation is useful for reducing running costs
e.g. At a hotel with a 24-hour system
8:00~23:00 Cooling operation with set temperature at 26°C
23:00~8:00 Setback operation with 2 degrees of setback
As shown in the chart on the right, the set temperature rises 2 degrees automatically during the setback operation. When the setback operation ends, normal operation will begin.



(3) Weekly timer function
Daily timer function can apply to each day of the week.

13-1-3. How to connect program timer

(1) Install the program timer next to the remote controller the same way as the remote controller is installed.
(2) Connect the program timer and the remote controller with a 5-wire cable as shown in the figure below



NOTE:While the program timer is connected to the remote controller, the 24hour ON/OFF timer on the remote controller will not operate.

13-1-4. Names and functions

<PAC-SC32PTA>

WEEKLY TIMER SETTING DISPLAY

Used for selection of if or not the day operation pattern set by PATTERN SETTING is to be applied in weekly day unit, setting.

CURRENT TIME DISPLAY

During MONITOR status,current time is display.
During Daily timer setting, a time desire for timer setting is displayed.

SET BACK DISPLAY

Indicates the setting set back range.

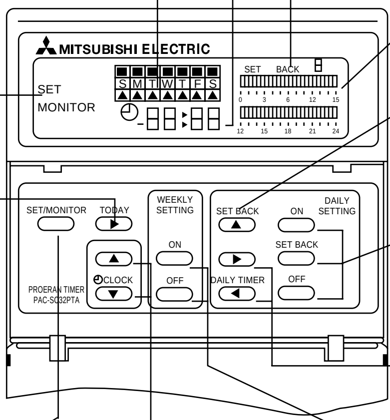
DAILY TIMER SETTING DISPLAY

24 hours is divided into 48 blocks and each block express 30 minutes.
The block display consists of 3 pattern.

Set back can be done in the range of 1,2,4,6 and 8°C.

SET/MONITOR DISPLAY

During SET is display, clock adjustment, change of weekly day, daily and weekly timer setting can be performed.
During MONITOR is display, all switches except SET/MONITOR SW are invalidated.
This is normal status.



SET BACK SETTING SW

Used for set back setting.

ON/SET BACK/OFF SW

Used to specify the time setting pattern.

WEEK DAY SETTING SW

Used for week day setting.

DAILY TIMER SW

Used for timer setting in 30 minutes unit.

MODE SELECTOR SW

Using this switch select “MONITOR” or “SET” Mode.

“MONITOR” :Indicates the current timer setting. All switch expect MODE SELECTOR SW are invalidated then.This is the normal status.
“SET”: Set to “SET” mode for clock adjustment, charge of week day, daily and weekly timer setting.

CLOCK ADJUSTMENT SW

Used for adjustment of the current time.

Push (▲) SW to advance the time. Each time the button is pushed the time advance by 1 minute, pushing continuously advances by 1 minute at 0.5 second interval, and when the lower digit of minute becomes 0 indication advances in 10 minutes unit.
(▼) SW is used for reversing the time. Each time the button is pushed the time reverses by 1 minute, pushing continuously reverses the time by 1 minute at 0.5 second interval, and when the lower digit of minute becomes 0 indication reverses in 10 minutes unit.

WEEKLY TIMER SW

Used for setting timer in day of week unit.

Pushing (▶) SW moves the week day light display in order of
S → M → T → W ···
enabling to set the week day.

13-2. Remote Sensor

Part No.	PAC-SE41TS-E
Applied Service Ref.	PMH-P1 / 1.6 / 2BA, PMH-P1 / 1.6 / 2BA$_1$

13-3. Remote Operation Adapter

Part No.	PAC-SF40RM-E
Applied Service Ref.	PMH-P1 / 1.6 / 2BA, PMH-P1 / 1.6 / 2BA$_1$

13-4. Remote ON/OFF Adapter

Part No.	PAC-SE55RA-E
Applied Service Ref.	PMH-P1 / 1.6 / 2BA, PMH-P1 / 1.6 / 2BA$_1$

Mr.SLIM™

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